DOCUMENT RESUME

ED 196 647 SE 030 959

TITLE	Las Matematicas: Lenguaje Universal. Grados Intermedios, Nivel 5b: Medida Lineal, Perimetro y Area (Mathematics: A Universal Language. Intermediate Grades, Level 5b: Linear Measure, Perimeter and Area).
INSTITUTION	Dissemination and Assessment Center for Bilingual Education, Austin, Tex.: Fort Worth Independent School District, Tex. Bilingual Education Program.
SPONS AGENCY	Office of Education (DHEW), Washington, D.C.
PUB DATE	79
NOTE	90p.: For related documents, see SE 030 950-962. Not available in hard copy due to copyright restrictions.
AVAILABLE FROM	Dissemination and Assessment Center for Bilingual Education, 7703 North Lamar Blvd., Austin, TX 78752 ($3.00).
LANGUAGE	English: Spanish
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	*Bilingual Education: *Elementary School Mathematics: Elementary Secondary Education: *Geometric Concepts: Mathematics Curriculum: Mathematics Instruction: *Measurement: Secondary School Mathematics: Spanish Culture: *Spanish Speaking: *Textbooks
IDENTIFIERS	Bilingual Materials

ABSTRACT

This is one of a series of student booklets designed for use in a bilingual mathematics program in grades 6-8. The general format is to present each page in both Spanish and English. The mathematical topics in this booklet include measurement, perimeter, and area. (MK)

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LAS MATEMÁTICAS: LENGUAJE UNIVERSAL

Nivel 5b

MEDIDA LINEAL, PERÍMETRO Y ÁREA

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BILINGUAL MATERIALS DEVELOPMENT CENTER

Grados Intermedios

Nivel 5b

LAS MATEMÁTICAS: LENGUAJE UNIVERSAL

MEDIDA LINEAL, PERÍMETRO Y ÁREA

Publicado por:

DACIBE

Elaborado por:

aguila volante series

BILINGUAL MATERIALS DEVELOPMENT CENTER

Dissemination and Assessment Center
for Bilingual Education
Education Service Center, Region XIII
7703 North Lamar
Austin, Texas 78752

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This publication was developed and printed with funds provided by the Bilingual Education Act, Title VII of the Elementary and Secondary Education Act of 1965, as amended by Public Law 93.380.

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ISBN-0-89417-590-4

LEVEL 5B

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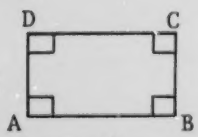
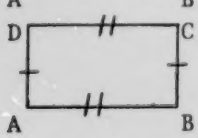
NIVEL 5B

SÍMBOLO	SIGNIFICADO
=	Es igual a
≐	Es aproximadamente igual a
+	Más (indica la suma o adición)
-	Menos (indica la resta o substracción)
x	Por (indica multiplicación)
m Ejemplo: $m(\overline{CD}) = 7$	La medida de Ejemplo: La medida del segmento de recta CD es 7.
$\overline{AB}$	Segmento de recta AB
$\overleftrightarrow{AB}$	Recta AB
$\overrightarrow{AB}$	Rayo AB
$\angle RPN$	Ángulo RPN
$\cup$	Union
$\cap$	Intersección
$\triangle$	Triángulo
ℓ	Longitud
w	Anchura
b	Base
a	Altura
s	Lado
A	Área
P	Perímetro



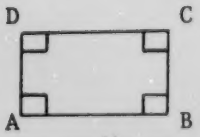
Un cuadrito ☐ colocado en el vértice significa un ángulo recto. En el rectángulo ABCD, $\angle ABC$, $\angle BCD$, $\angle CDA$ y $\angle DAB$ son angulos rectos.



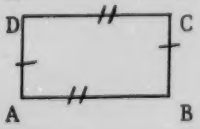
Los lados marcados con el mismo número de rayitas tienen la misma longitud. El rectángulo ABCD, $m(\overline{AB}) = m(\overline{DC})$ y $m(\overline{AD}) = m(\overline{BC})$.

LEVEL CB

SYMBOL	MEANING
=	Is equal to, equals
≐	Is approximately equal to
+	Plus (indicates addition)
-	Minus (indicates subtraction)
x	Times (indicates multiplication)
m Example: $m(\overline{CD})=7$	The measure of Example: The measure of line segment CD is 7.
$\overline{AB}$	Line segment AB
$\overleftrightarrow{AB}$	Line AB
$\overrightarrow{AB}$	Ray AB
∠RPN	Angle RPN
∪	Union
∩	Intersection
△	Triangle
ℓ	Length
w	Width
b	Base
a	Altitude
s	Side
A	Area
P	Perimeter



A little box ☐ placed at a vertex means a right angle. In rectangle ABCD, ∠ ABC, , ∠ BCD, ∠ CDA, and ∠ DAB are right angles.



Sides which have the same number of strokes have the same length. In rectangle ABCD, $m(\overline{AB}) = m(\overline{DC})$ and $m(\overline{AD}) = m(\overline{BC})$.

3^2	Tres a la segunda potencia, tres cuadrado (3 x 3) (2 se llama exponente)
s^2	Lado cuadrado (s x s)
S_1	Lado sub uno (1 se lee "sub 1")
S_2	Lado sub dos (2 se lee "sub 2")

Algunos de los términos matemáticos se escriben con letras mayúsculas para darles énfasis. Las palabras del glosario se escriben en letras itálicas y mayúsculas. Se subrayan las palabras para dar énfasis o para identificar las respuestas.

3^2	Three to the second power, three squared (3 x 3) (2 is called an exponent.)
S^2	Side squared (S x S)
S_1	Side sub one (1 is read "sub 1.")
S_2	Side sub two (2 is read "sub 2.")

Some mathematical terms are capitalized for emphasis. Glossary words are italicized and capitalized. Underlining is used for emphasis or to identify answers.

NIVEL 5B: MEDIDA LINEAL, PERÍMETRO Y ÁREA

LECCIÓN 5B-1: MEDIDAS

Una *MEDIDA* tiene dos partes:

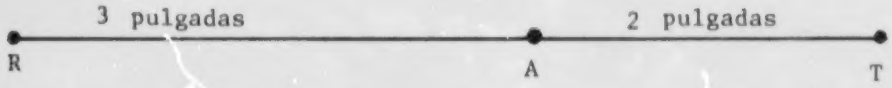
1. Un numeral para designar la medida
2. Una palabra o un símbolo para designar la unidad de medida

Ejemplo: 8 pulgadas

La *MEDIDA* de un segmento de recta depende de la unidad de medida que se usa.

La *MEDIDA* de $\overline{AB}$ es 5 centímetros. En símbolos se escribe: $m(\overline{AB}) = 5$. Se lee así: "La medida del segmento de recta AB es 5." La unidad de medida es el centímetro.

Mira los segmentos RA y AT del diagrama siguiente. $m(\overline{RA})$ y $m(\overline{AT})$ se expresan en una misma unidad de medida.



Las medidas de estos segmentos se pueden sumar o restar.

$m(\overline{RA}) + m(\overline{AT}) = M(\overline{RT})$

$3 + 2 = 5$

$\overline{RT}$ tiene 5 pulgadas de longitud.

$M(\overline{RT}) - m(\overline{AT}) = m(\overline{RA})$

$5 - 2 = 3$

$\overline{RA}$ tiene 3 pulgadas de longitud.

LEVEL 5B: LINEAR MEASURE, PERIMETER AND AREA

LESSON 5B-1: MEASURES AND MEASUREMENTS

A *MEASUREMENT* consists of two parts:

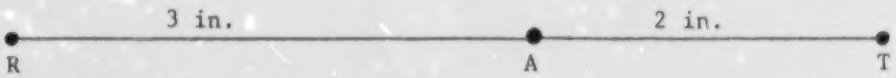
1. A numeral to name the measure
2. A word or symbol to name the unit of measure.

Example: 8 inches

The *MEASURE* of a line segment depends upon the unit of measure.

The *MEASUREMENT* of $\overline{AB}$ is 5 centimeters. In symbols, we write: $m(\overline{AB}) = 5$. This is read: "The measure of line segment AB is 5. The unit of measure is a centimeter.

Look at line segments RA and AT which are shown below. $m(\overline{RA})$ and $m(\overline{AT})$ are expressed in the same units--inches.



The measure of these lines segments can be added or subtracted.

$m(\overline{RA}) + m(\overline{AT}) = m(\overline{RT})$

$3 + 2 = 5$

$\overline{RT}$ is 5 in. long.

$m(\overline{RT}) - m(\overline{AT}) = m(\overline{RA})$

$5 - 2 = 3$

$\overline{RA}$ is 3 in. long.

Ejercicio 5B-1

Muestra todo el trabajo escrito en una hoja de papel. Halla la longitud total, sumando las longitudes dadas.

1. 26 mm., 64 mm., 36 mm.

2. 18 pulg., 20 pulg., 7 pulg.

3. 9 pulg., 6 pulg. 2 pulg.

4. 6 cm., 12 cm., 89 cm.

5. 2 mi., 11 mi., 76 mi.

Halla la diferencia, restando la segunda medida de la primera.

6. 56 mi., 37 mi.

7. 130 p., 85 p.

8. 37 mm. 26 mm.

9. 11 pulg., 3 pulg.

10. 17 yd., 5 yd.

ABREVIATURAS
mm. - milímetros
cm. - centímetros
pulg. - pulgadas
p. - pies
yd. - yardas
mi. - millas

REVISA TUS RESPUESTAS.

CORRIGE TUS ERRORES.

Exercise 5B-1

Show all work on notebook paper. Find the combined length by adding the given lengths.

1. 26 mm., 64 mm., 36 mm.

2. 18 in., 20 in., 7 in.

3. 9 in., 6 in., 2 in.

4. 6 cm., 12 cm., 89 cm.

5. 2 mi., 11 mi., 76 mi.

Find the difference by substracting the second measure from the first measure.

6. 56 mi., 37 mi.

7. 130 ft., 85 ft.

8. 37 mm., 26 mm.

9. 11 in., 3 in.

10. 17 yd., 5 yd.

ABBREVIATIONS

mm. - millimeters
cm. - centimeters
in. - inches
ft. - feet
yd. - yards
mi. - miles

CHECK YOUR ANSWERS.

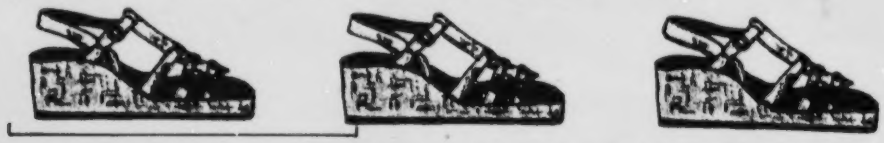
CORRECT YOUR MISTAKES.

LECCIÓN 5B-2: MIDIENDO SEGMENTOS DE RECTA

No puedes medir longitud con precisión exacta; todas las medidas son aproximadas. Es necesario que puedas medir usando distintas unidades de medida. De este modo, puedes elegir (escoger) la unidad más cómoda para cada objeto que quieres medir.

UNIDAD DE MEDIDA - El segmento de recta elegido como unidad básica de medida

Ejemplo a. Unidad de medida: un zapato.



La medida de este segmento es 2 si estás midiendo al "zapato" más cercano.

Ejemplo b. Unidad de medida: un zapato.

La medida de este segmento es 2 si estás midiendo al "zapato" más cercano.

Ejemplo c. Unidad de medida: un zapato.

La medida de este segmento es 3 si estás midiendo al "zapato" más cercano.

Como muestran los dibujos anteriores, si la medida de un segmento es mayor que o igual a la mitad de la unidad de medida, entonces la medida se rendondea a la unidad superior. Si la medida es menor que la mitad de la unidad de medida, entonces se redondea a la unidad inferior.

LESSON 5B-2: MEASURING LINE SEGMENTS

You cannot measure length exactly; all measurements are approximate. It is necessary for you to be able to measure in different units of measure. This will enable you to choose the unit which is most convenient for each object that you measure.

> *UNIT OF MEASURE* - A segment which has been selected as a standard of measure

Example a. Unit of measure: a shoe.

The measure of this segment is 2 if you are measuring to the nearest "shoe".

Example b. Unit of measure: a shoe.

The measure of this segment is 2 if you are measuring to the nearest "shoe".

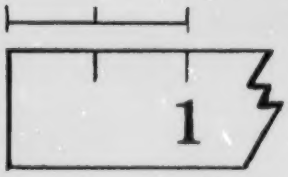
Example c. Unit of measure: a shoe.

The measure of this segment is 3 if you are measuring to the nearest "shoe".

This means if the measurement of a segment is a least 1/2 of the unit of measure, the measurement is rounded up to the next higher unit. If the measurement is less than 1/2 the unit of measure, it is rounded down to the previous unit.

El sistema inglés se usa en los Estados Unidos. La unidad básica de longitud es la yarda. Una unidad de longitud más corta es la pulgada.

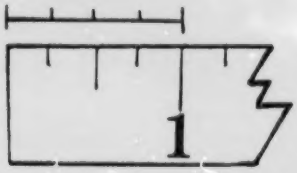
Cada uno de estos segmentos tiene una pulgada de largo.



Longitud: 1 pulgada

Número de partes iguales: 2

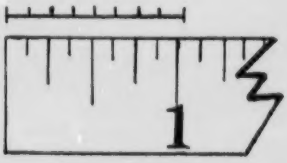
Cada parte: $\frac{1}{2}$ pulgada



Longitud: 1 pulgada

Número de partes iguales: 2

Cada parte: $\frac{1}{4}$ pulgada



Longitud: 1 pulgada

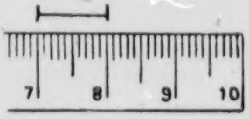
Número de partes iguales: 2

Cada parte: $\frac{1}{8}$ pulgada

El sistema métrico se usa en todas partes del mundo. La unidad básica de longitud es el metro. Una unidad más pequeña es el centímetro.

La longitud de este segmento de recta es un centímetro.

Este segmento de recta tiene 1 centímetro de longitud.



Longitud: 1 centímetro

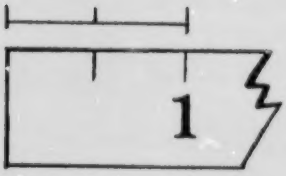
Número de partes iguales: 10

Cada parte: $\frac{1}{10}$ centímetro

(Cada parte se llama un milímetro.)

The English system is used in the United States. The standard unit of linear measure is the yard. A smaller unit of linear measure is the inch.

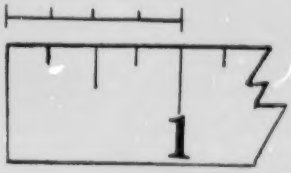
The length of each of these three line segments is 1 inch.



Length: 1 inch

Number of equal parts: 2

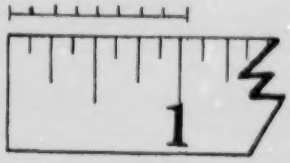
Each part: $\frac{1}{2}$ inch



Length: 1 inch

Number of equal parts: 4

Each part: $\frac{1}{4}$ inch



Length: 1 inch

Number of equal parts: 8

Each part: $\frac{1}{8}$ inch

The metric system is used throughout the world. The standard unit of linear measure is the meter. A smaller unit of linear measure is the centimeter.

The length of this line segment is 1 centimeter.

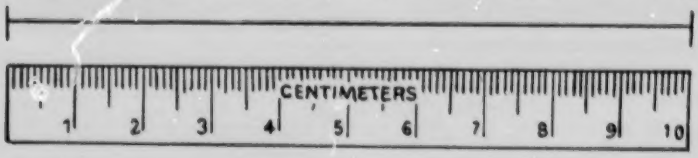
Length: 1 centimeter

Number of equal parts: 10

Each part: $\frac{1}{10}$ centimeter.

(Each part is called a millimeter.)

Este segmento de recta tiene 1 decímetro de longitud.



Longitud: 1 decímetro

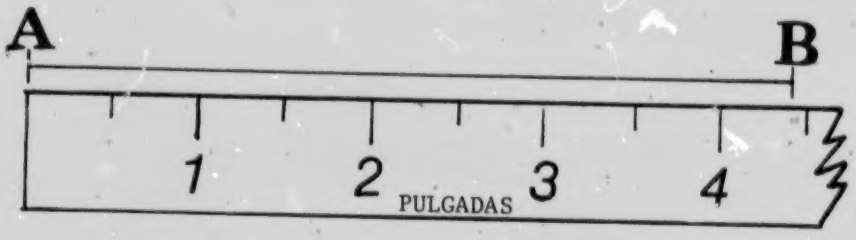
Número de partes iguales: 10

Cada parte: $\frac{1}{10}$ decímetro

(Cada parte se llama un centímetro.)

Estudia estos ejemplos.

Ejemplo a. Mide el segmento de recta AB a la pulgada más cercana.



$\overline{AB}$: 4 pulgadas

The length of this line segment is 1 decimeter.

Length: 1 decimeter

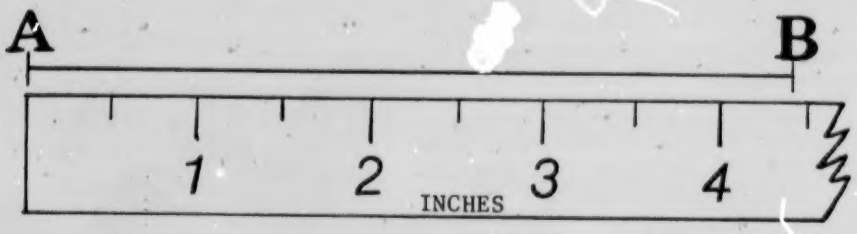
Number of equal parts: 10

Each part: $\frac{1}{10}$ decimeter

(Each part is called a centimeter.)

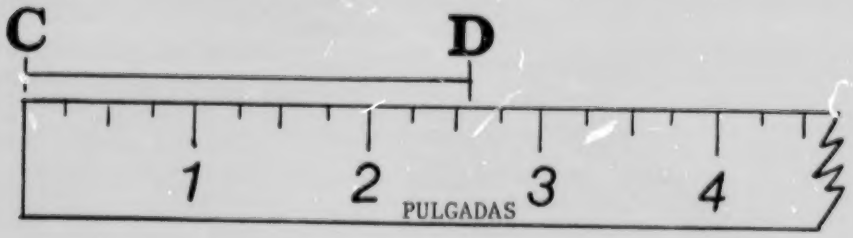
Study these examples.

Example a. Measure line segment AB to the nearest inch.



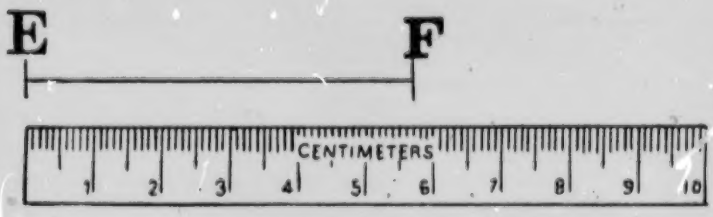
$\overline{AB}$: 4 inches

Ejemplo b. Mide el segmento de recta CD a la pulgada más cercana.



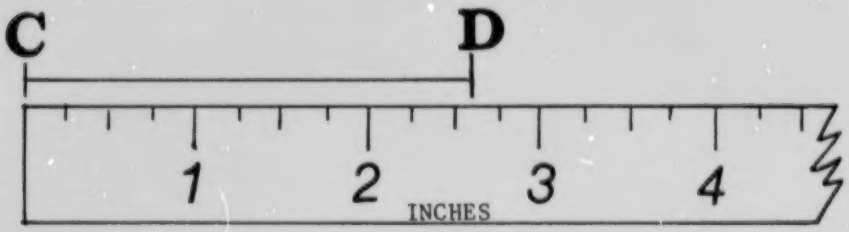
$\overline{CD}$: $2\frac{1}{2}$ pulgadas

Ejemplo c. Mide el segmento de recta EF al centímetro más cercano.



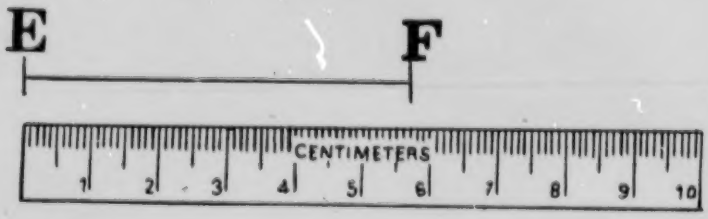
$\overline{EF}$: 6 centímetros

Example b. Measure line segment CD to the nearest inch.



$\overline{CD}$: $2\frac{1}{2}$ inches

Example c. Measure line segment EF to the nearest centimeter.



$\overline{EF}$: 6 centimeters

Ejercicio 5B-2

Muestra todo el trabajo escrito en una hoja de papel.

Las flechas indican la posición de puntos en un segmento de recta. Escribe la longitud de cada segmento.

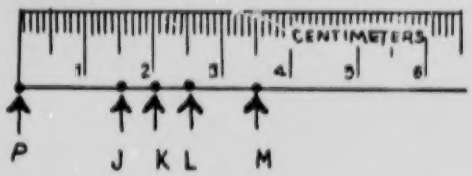
Sistema inglés

Ejemplo a.

$\overline{RA}$: $\frac{1}{4}$ pulgada

$\overline{RB}$: $\frac{5}{8}$ pulgada

Sistema métrico



Ejemplo b.

$\overline{PJ}$: 2 centímetros

1. $\overline{RC}$: _____pulgada
2. $\overline{RF}$: _____pulgadas
3. $\overline{PK}$: _____centímetros
4. $\overline{RD}$: _____pulgada
5. $\overline{RG}$: _____pulgadas
6. $\overline{PL}$: _____centímetros
7. $\overline{RE}$: _____pulgadas
8. $\overline{RH}$: _____pulgadas
9. $\overline{PM}$: _____centímetros

Exercise 5B-2

Show all work on notebook paper.

Arrows indicate the location of points on a line segment. Write the length of each line segment.

English System

Example a.

$\overline{RA}$: $\frac{1}{4}$ inch

$\overline{RB}$: $\frac{5}{8}$ inch

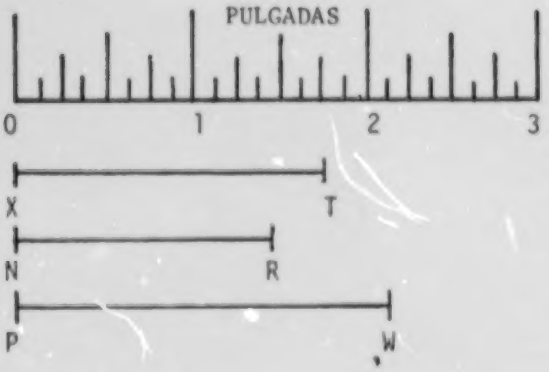
Metric System

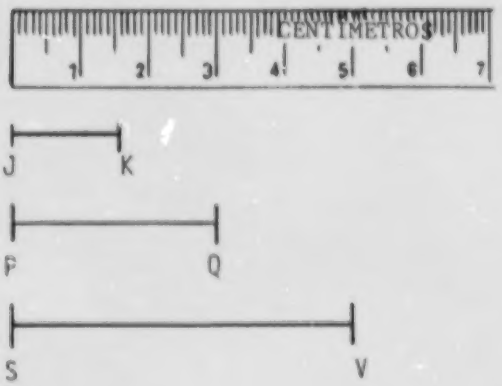
Example b.

$\overline{PJ}$: 2 centimeters

1. $\overline{RC}$: _____inch
2. $\overline{RF}$: _____inches
3. $\overline{PK}$: _____centimeters
4. $\overline{RD}$: _____inch
5. $\overline{RG}$: _____inches
6. $\overline{PL}$: _____centimeters
7. $\overline{RE}$: _____inches
8. $\overline{RH}$: _____inches
9. $\overline{PM}$: _____centimeters

¿A qué unidad de medida está más cercano cada segmento?





Escoge la respuesta correcta.

10. La longitud de $\overline{XT}$ está más cercana a

    $1\frac{3}{4}$ pulgadas o $1\frac{7}{8}$ pulgadas

    _____

11. La longitud de $\overline{NR}$ está más cercana a

    $1\frac{1}{2}$ pulgadas o $1\frac{3}{8}$ pulgadas

    _____

12. La longitud de $\overline{PW}$ está más cercana a

    $1\frac{3}{4}$ pulgadas o 2 pulgadas

    _____

13. La longitud de $\overline{JK}$ está más cercana a

    1 centímetro o 2 centímetros.

    _____

14. La longitud de $\overline{PQ}$ está más cercana a

    3 centímetros o 2 centímetros.

    _____

15. La longitud de $\overline{SV}$ está más cercana a

    4 centímetros o 5 centímetros.

    _____

Usa una regla para medir estos segmentos de recta a la unidad más cercana que se indica.

Fíjate: $\doteq$ significa "es aproximadamente igual a."

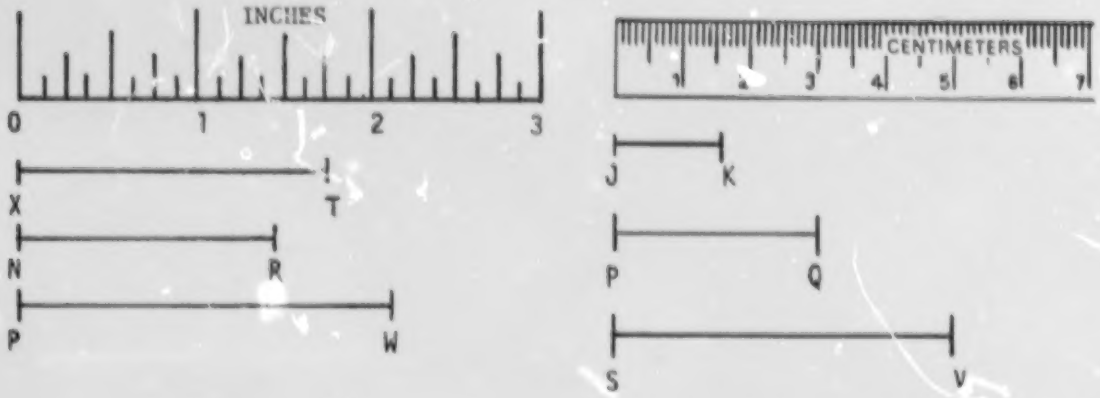
16.

    Longitud de $\overline{AB}$ $\doteq$ _____pulgadas (a la pulgada más cercana)

17.

    Longitud de $\overline{CD}$ $\doteq$ _____pulgadas (a la $\frac{1}{4}$ pulgada más cercana)

Which unit of measure is each segment nearer to?



Choose the correct answer.

10. The length of $\overline{XT}$ is nearer to $1\frac{3}{4}$ inches or $1\frac{7}{8}$ inches.

_____

11. The length of $\overline{NR}$ is nearer to $1\frac{1}{2}$ inches or $1\frac{3}{8}$ inches.

_____

12. The length of $\overline{PW}$ is nearer to $1\frac{3}{4}$ inches or 2 inches.

_____

13. The length of $\overline{JK}$ is nearer to 1 centimeter or 2 centimeters.

_____

14. The length of $\overline{PQ}$ is nearer to 3 centimeters or 2 centimeters.

_____

15. The length of $\overline{SV}$ is nearer to 4 centimeters or 5 centimeters.

_____

Use a ruler to measure these line segments to the nearest unit indicated.

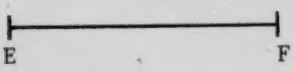
Notice: $\doteq$ means "approximately equal to."

16.

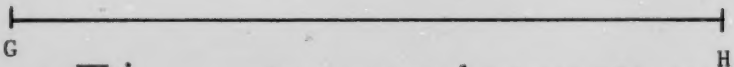
Length of $\overline{AB} \doteq$ _____inches (to the nearest inch)

17.

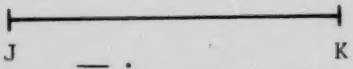
Length of $\overline{CD} \doteq$ _____inches (to the nearest $\frac{1}{4}$ inch)

18. 

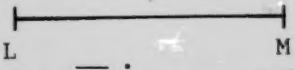
Longitud de $\overline{EF} \doteq$ _____pulgadas (a la $\frac{1}{8}$ pulgada más cercana)

19. 

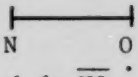
Longitud de $\overline{GH} \doteq$ _____pulgadas (a la $\frac{1}{16}$ pulgada más cercana)

20. 

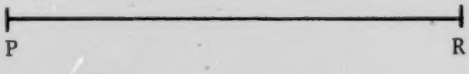
Longitud de $\overline{JK} \doteq$ _____centímetros

21. 

Longitud de $\overline{LM} \doteq$ _____milímetros

22. 

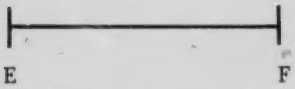
Longitud de $\overline{NO} \doteq$ _____milímetros

23. 

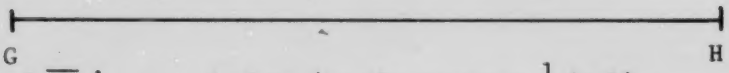
Longitud de $\overline{PR} \doteq$ _____centímetros

REVISA TUS RESPUESTAS.

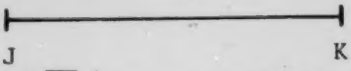
CORRIGE LOS ERRORES.

18. 

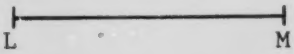
Length of $\overline{EF} \doteq$ _____inches (to the nearest $\frac{1}{8}$ inch)

19. 

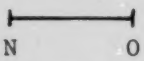
Length of $\overline{GH} \doteq$ _____inches (to the nearest $\frac{1}{16}$ inch)

20. 

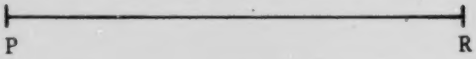
Length of $\overline{JK} \doteq$ _____centimeters

21. 

Length of $\overline{LM} \doteq$ _____millimeters

22. 

Length of $\overline{NO} \doteq$ _____millimeters

23. 

Length of $\overline{PR} \doteq$ _____centimeters

CHECK YOUR ANSWERS.

CORRECT YOUR MISTAKES.

LECCIÓN 5B-3: PRÁCTICA EN EL USO DE LA REGLA

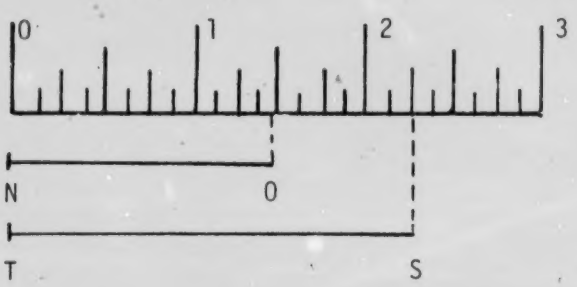
El uso de la regla es muy importante en las matemáticas, en la carpintería, en la construcción y en el manejo de la casa.

Al medir un segmento de recta, coloca (pon) la regla de tal manera que el punto cero se encuentre al principio del segmento.

Ejercicio 5B-3

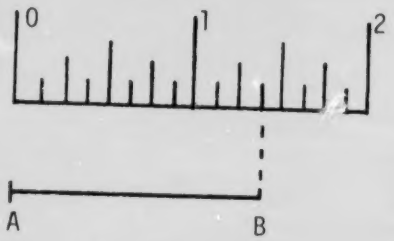
Escoje la respuesta correcta.

1. La longitud de $\overline{NO}$ está más cercana a $1\frac{3}{8}$ pulgadas ó $1\frac{1}{2}$ pulgadas.



2. La longitud de $\overline{TS}$ está más cercana a $2\frac{1}{4}$ pulgadas ó $2\frac{3}{8}$ pulgadas.

3. (a) $\overline{AB}$ mide 1 pulgada ó 2 pulgadas de largo si se mide a la pulgada más cercana.



(b) $\overline{AB}$ mide 1 pulgada ó $1\frac{1}{2}$ pulgadas de largo si se mide a la media pulgada más cercana.

(c) $\overline{AB}$ mide $1\frac{1}{4}$ pulgadas ó $1\frac{1}{2}$ pulgadas de largo si se mide a la cuarta pulgada más cercana.

(d) $\overline{AB}$ mide $1\frac{1}{4}$ pulgadas ó $1\frac{3}{8}$ pulgadas de largo si se mide a la octava pulgada más cercana.

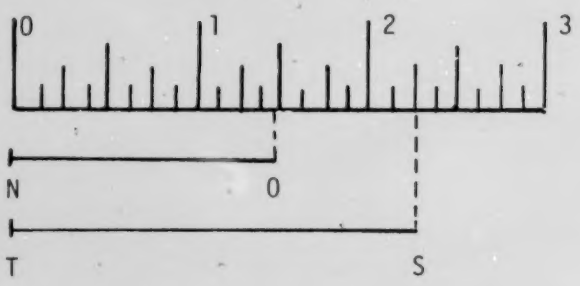
LESSON 5B-3: PRACTICE IN USING THE RULER

Using a ruler is very important in mathematics, wood work, construction, and homemaking.

When you measure a line segment, be sure to place your ruler so that the zero point is at the beginning of the line segment.

Exercise 5B-3:

Choose the correct answer.

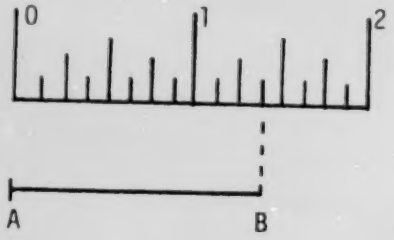


1. The length of $\overline{NO}$ is nearer to $1\frac{3}{8}$ inches or $1\frac{1}{2}$ inches.

   _____

2. The length of $\overline{TS}$ is nearer to $2\frac{1}{4}$ inches or $2\frac{3}{8}$ inches.

   _____



3. (a) To the nearest inch $\overline{AB}$ is 1 inch or 2 inches.

   _____

   (b) To the nearest one-half inch $\overline{AB}$ is 1 inch or $1\frac{1}{2}$ inches.

   _____

   (c) To the nearest one-fourth inch $\overline{AB}$ is $1\frac{1}{4}$ inches or $1\frac{1}{2}$ inches.

   _____

   (d) To the nearest one-eighth inch $\overline{AB}$ is $1\frac{1}{4}$ inches or $1\frac{3}{8}$ inches.

   _____

Usa la regla para medir los segmentos de recta a la unidad más cercana que se indica. Recuerda colocar (poner) la regla de tal manera que el punto cero se encuentra al principio del segmento.

4. _____(la $\frac{1}{4}$ pulgada más cercana)

5. _____(la $\frac{1}{2}$ pulgada más cercana)

6. _____(la $\frac{1}{8}$ pulgada más cercana)

7. _____(el centímetro más cercano)

8. _____(el milímetro más cercano)

9. _____(el centímetro más cercano)

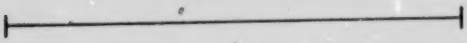
10. _____(el centímetro más cercano)

REVISA TUS RESPUESTAS.

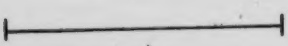
CORRIGE LOS ERRORES.

Use the ruler to measure the line segments to the nearest unit indicated.
Be sure the zero point of the ruler is at the beginning of the segment.

4. _____(nearest $\frac{1}{4}$ inch)

5.  _____(nearest $\frac{1}{2}$ inch)

6. _____(nearest $\frac{1}{8}$ inch)

7.  _____(nearest centimeter)

8. _____(nearest millimeter)

9. _____(nearest centimeter)

10. _____(nearest centimeter)

CHECK YOUR ANSWERS.

CORRECT YOUR MISTAKES.

LECCIÓN 5B-4: PERÍMETRO

> El *PERÍMETRO* de una figura plana es la suma de las medidas de sus lados.

Hay varias fórmulas (métodos para calcular la respuesta correcta) que se usan para hallar *PERÍMETROS* de figuras. Pero fíjate, no tienes que recordar las fórmulas solamente acuérdate de sumar las longitudes de los lados y te sale el perímetro.

Perímetro = lado 1 + lado 2 + lado 3 + lado 4 ...

$$P = s_1 + s_2 + s_3 + s_4 \ldots$$

Ejemplo:

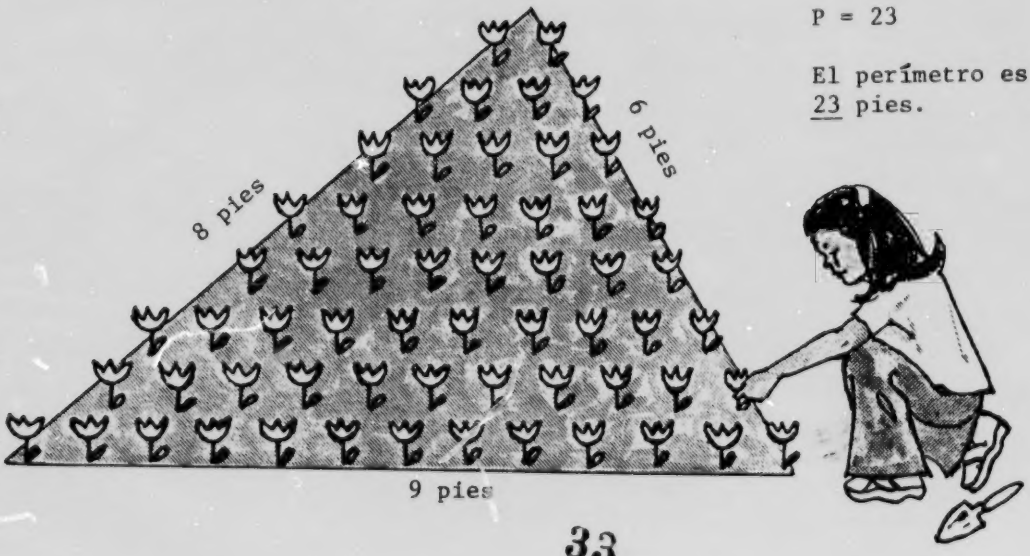
Silvia tiene un chiquito jardín triángulo. Las longitudes de los lados son 8 pies, 6 pies y 9 pies. ¿Cuál es el perímetro?

$P = s_1 + s_2 + s_3$

$P = 8 + 6 + 9$

$P = 23$

El perímetro es 23 pies.



LESSON 5B-4: PERIMETER

> The *PERIMETER* of a plane figure is the sum of the measures of its sides.

There are several formulas (methods of getting a correct answer) that are used when finding *PERIMETERS*, but remember, if you simply add the lengths of the sides, you will get the perimeter.

Perimeter = side 1 + side 2 + side 3 + side 4 ...

$$P = s_1 + s_2 + s_3 + s_4 \ldots$$

Example:

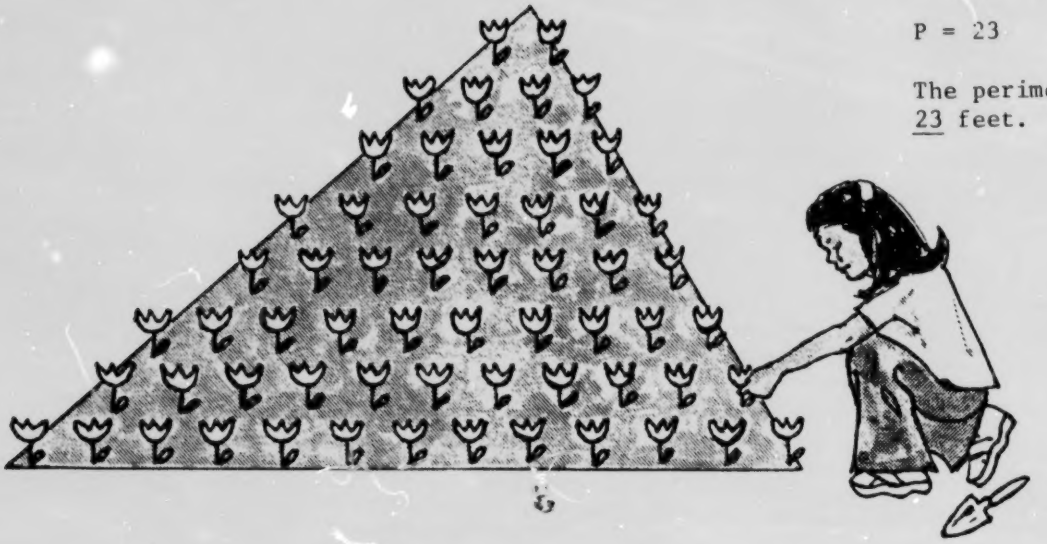
Sylvia has a small flower garden which is in the shape of a triangle. The lengths of its sides are 8 ft., 6 ft., and 9 ft. What is the perimeter?

$P = s_1 + s_2 + s_3$

$P = 8 + 6 + 9$

$P = 23$

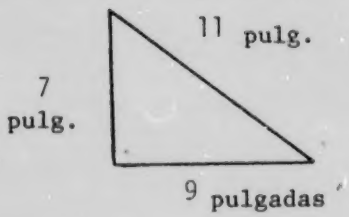
The perimeter is 23 feet.



Ejercicio 5B-4

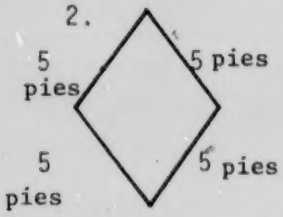
Halla el perímetro de cada figura. Muestra todo el trabajo escrito en una hoja de papel.

1.



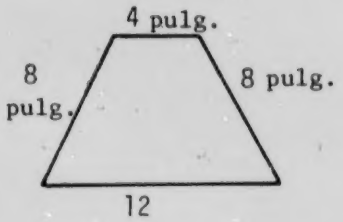
_____ pulgadas

2.



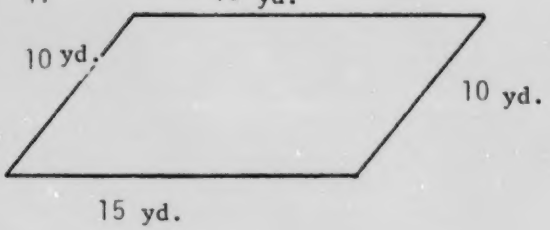
_____ pies

3.



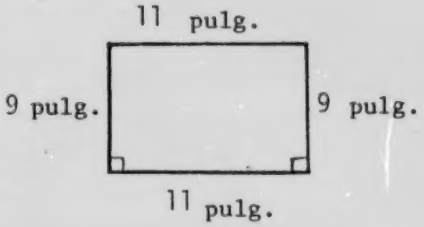
_____ pulgadas

4.



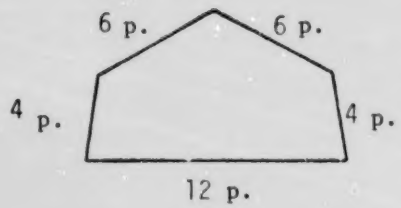
_____ yardas

5.



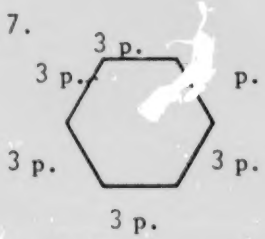
_____ pulgadas

6.



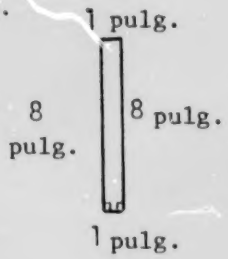
_____ pies

7.



_____ pies

8.

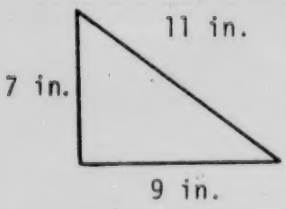


_____ pulgadas

Exercise 5B-4

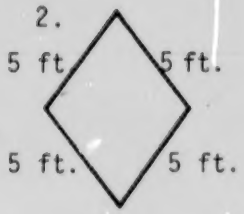
Find the perimeter of each figure. Show all work on notebook paper.

1.



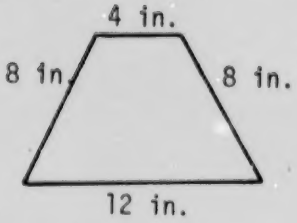
_____ inches

2.



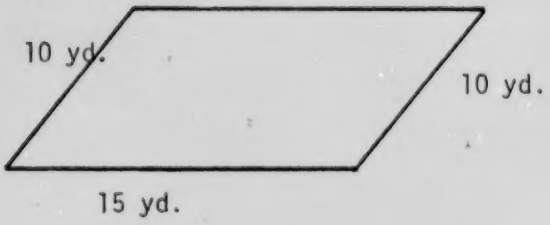
_____ feet

3.



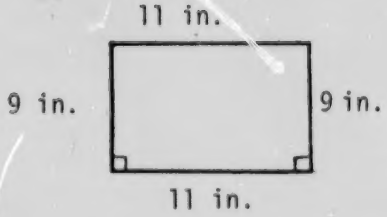
_____ inches

4.



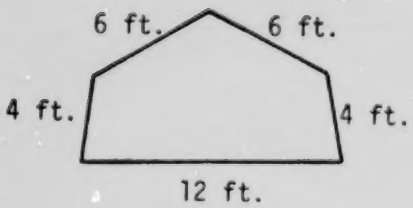
_____ yards

5.



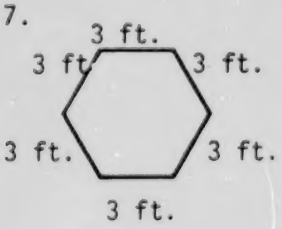
_____ inches

6.



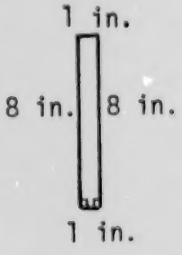
_____ feet

7.



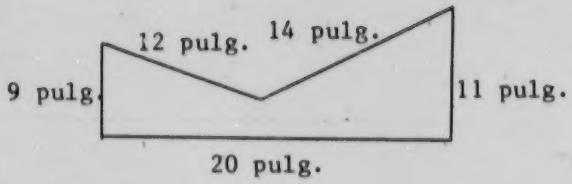
_____ feet

8.



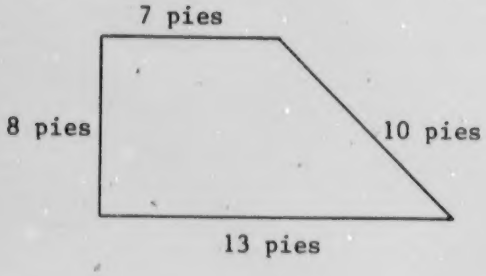
_____ inches

9.



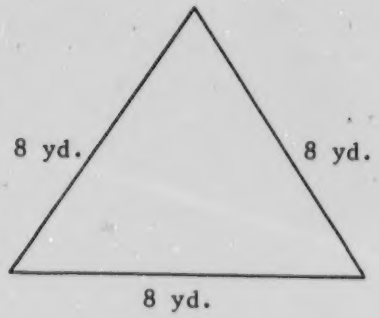
_____ pulgadas

10.



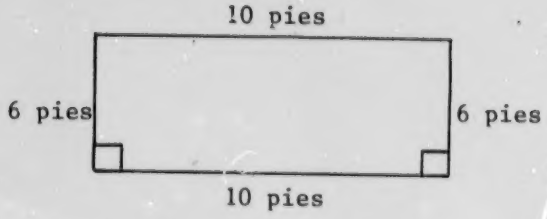
_____ pies

11.



_____ yardas

12.

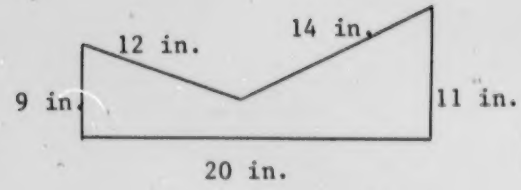


_____ pies

REVISA TUS RESPUESTAS.

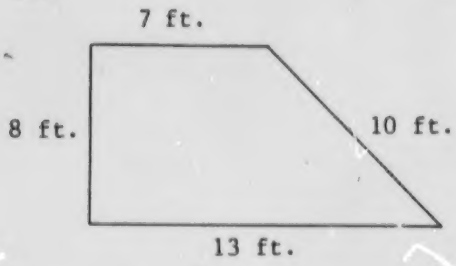
CORRIGE LOS ERRORES.

9.



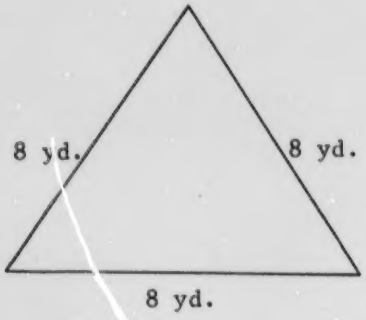
_____ inches

10.



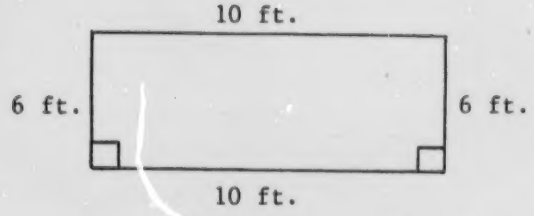
_____ feet

11.



_____ yards

12.



_____ feet

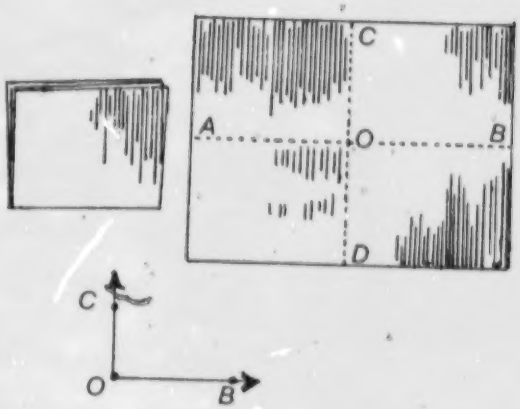
CHECK YOUR ANSWERS.

CORRECT YOUR MISTAKES.

LECCIÓN 5B-5: PERÍMETRO DE RECTÁNGULOS

El concepto de ángulo recto te ayudará a comprender lo que es un rectángulo. Si doblas una hoja de papel por la mitad y vuelves a doblarla de tal manera que coincidan los bordes, como se muestra en el dibujo, se forman representaciones de cuatro ángulos.

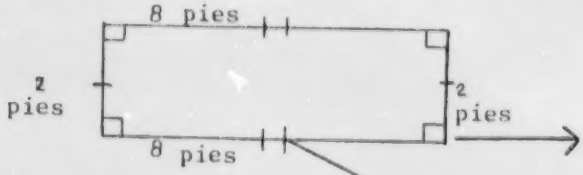
Estos ángulos forman esquinas cuadradas y se llaman ángulos rectos.



<COB es un ángulo recto.

RECTÁNGULO - Una figura plana de cuatro lados que tiene cuatro ángulos rectos. (Ángulos rectos forman esquinas cuadradas.)

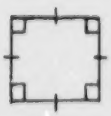
Aquí tienes el dibujo de un *RECTÁNGULO*. Los lados opuestos tienen la misma medida (la misma longitud.)



Un cuadrito ☐ colocado en el vértice significa un ángulo recto.

Los lados marcados con el mismo número de rayitas tienen la misma longitud.

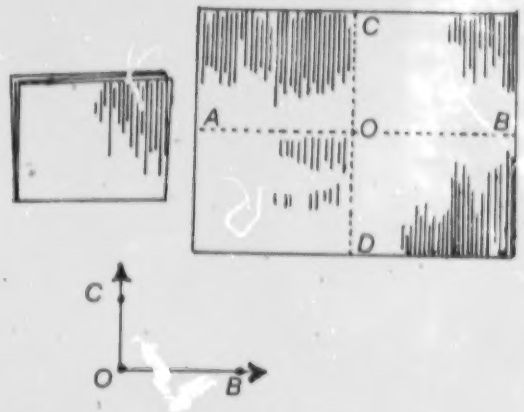
Un *CUADRADO* es un tipo especial de rectángulo que tiene cuatro lados de la misma medida (de la misma longitud).



39

LESSON 5B-5: PERIMETER OF RECTANGLES

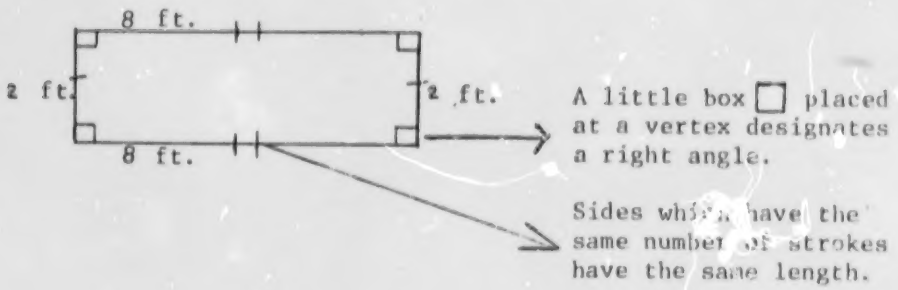
The concept of right angle will help you understand what is meant by a rectangle. If you fold a sheet of paper in half and then fold it in half again so that the edges coincide, as the drawing illustrates, representations of four angles are formed. These angles form square corners and are called right angles.



<COB is a right angle.

RECTANGLE - A four-sided plane figure that has four right angles. (Right angles form square corners.)

This is a drawing of a *RECTANGLE*. The opposite sides are equal in measure. They have the same length.


8 ft.
2 ft.
2 ft.
8 ft.
A little box ☐ placed at a vertex designates a right angle.
Sides which have the same number of strokes have the same length.

The *SQUARE* is a special rectangle in which all four sides have the same measure.

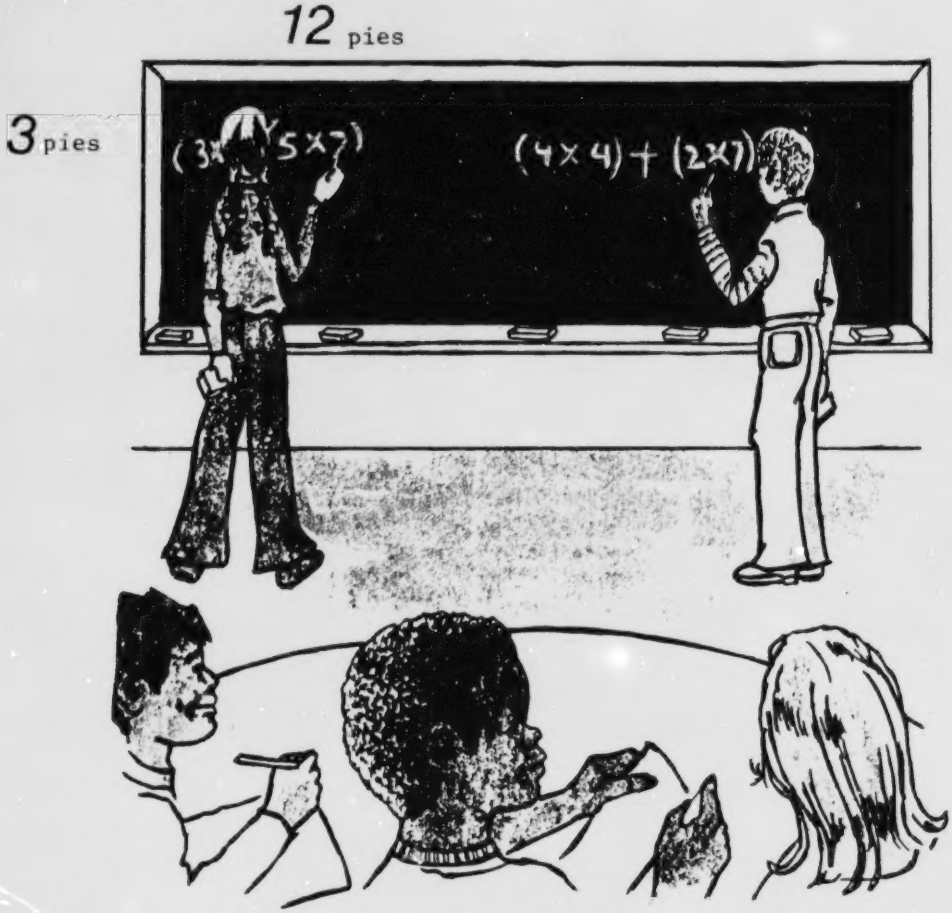
Puedes usar una fórmula para calcular el perímetro de un rectángulo.

Perímetro = (2 x la longitud) + (2 x la anchura)

$P = 2\ell + 2w$

Ejemplo:

María y José están resolviendo problemas matemáticos, escribiéndolos en el pizarrón. El pizarrón mide 12 pies de largo y 3 pies de ancho.
¿Cuál es el perímetro?



3 pies

P = 21 + 2w

P = (2 x 12) + (2 x 3)

P = 24 + 6

P = 30 pies

41

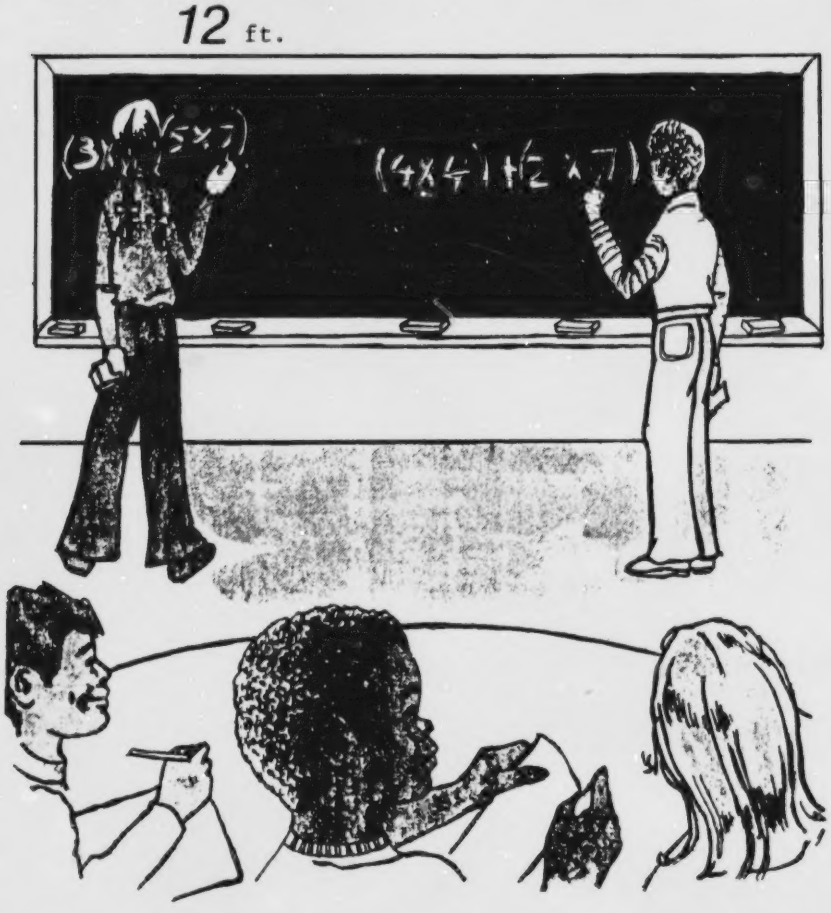
There is a formula which can be used to find the perimeter of a rectangle.

Perimeter = (2 x length) + (2 x width)

$P = 2\ell + 2w$

Example:

Mary and Joe are working some problems on the chalkboard
The chalkboard is rectangular and is 12 ft. long by 3 feet high.
What is the perimeter?



P = 21 + 2w

P = (2 x 12) + (2 x 3)

P = 24 + 6

P = 30 ft.

Puedes usar una fórmula para calcular el perímetro de un cuadrado.

Perímetro = 4 x la medida de un lado

P = 4s

Ejemplo:

Un marco cuadrado mide
8 pulgadas de lado.
¿Cuál es el perímetro del marco?

8 pulg.

8
pulg.

8
pulg.

8

P = 4s

P = 4 x 8

P = 32 pulg. cuad.

43

There is a formula which can be used to find the perimeter of a square.

Perimeter = 4 x measure of one side

P = 4s

Example:

A square picture frame is 8 inches on a side. What is the perimeter of the frame?

8 in.

P = 4s

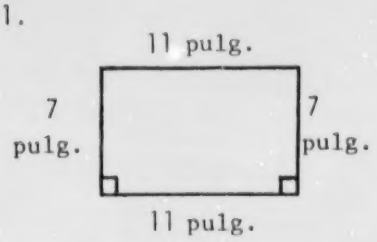
P = 4 x 8

P = 32 sq. in.

Ejercicio 5B-5

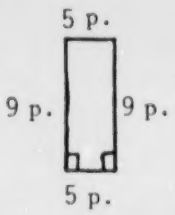
Halla el perímetro de cada figura. Usa la fórmula correcta, mostrando todo el trabajo escrito en una hoja de papel.

1.



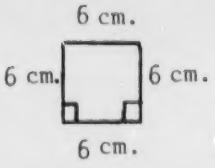
_____ pulg.

2.



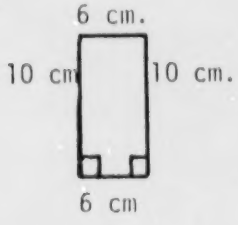
_____ pies

3.



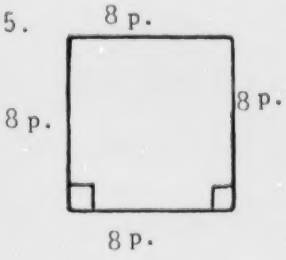
_____ cm.

4.



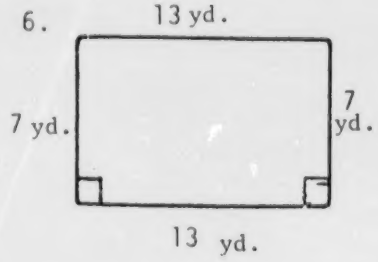
_____ cm.

5.



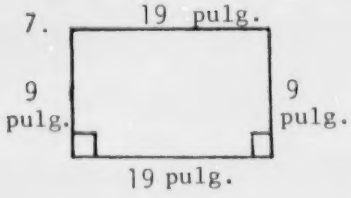
_____ pies

6.



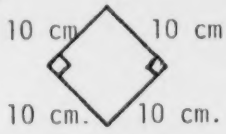
_____ yd.

7.



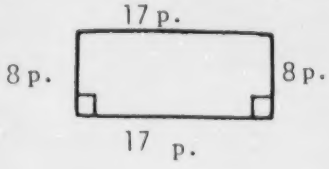
_____ pulgadas

8.



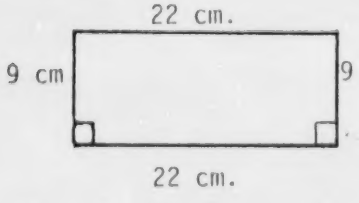
_____ cm.

9.



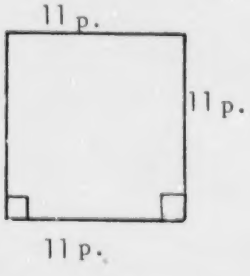
_____ pies

10.



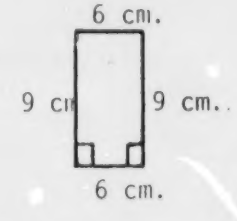
_____ cm.

11.



_____ pies

12.



_____ cm.

REVISA TUS RESPUESTAS.

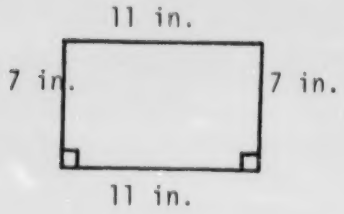
CORRIGE LOS ERRORES.

45

Exercise 5B-5

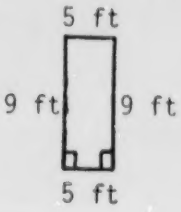
Find the perimeter of each figure. Use the proper formula. Show all work on notebook paper.

1.



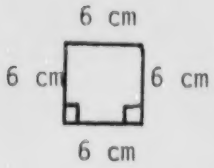
_____ inches

2.



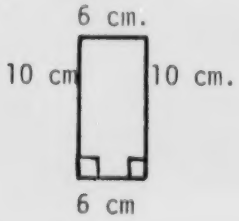
_____ feet

3.



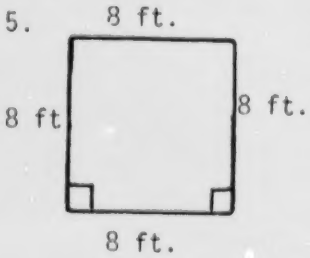
_____ cm.

4.



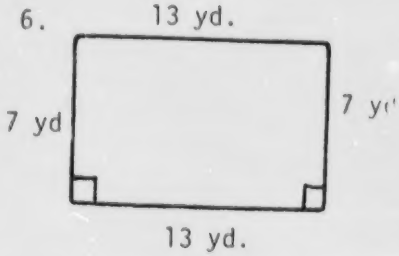
_____ cm.

5.



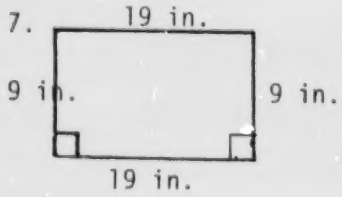
_____ ft.

6.



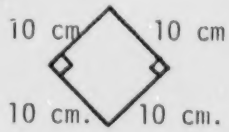
_____ yd.

7.



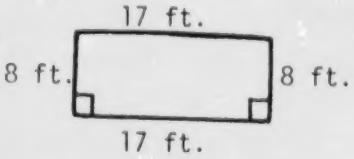
_____ inches

8.



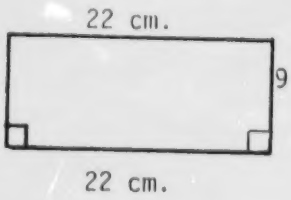
_____ cm.

9.



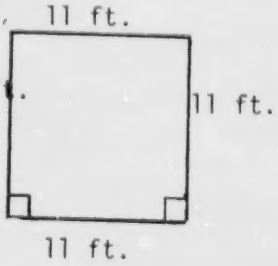
_____ feet.

10.



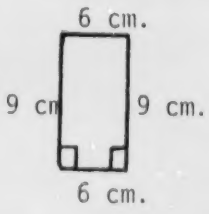
_____ cm.

11.



_____ ft.

12.

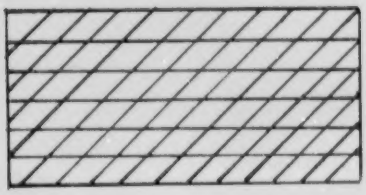


_____ cm.

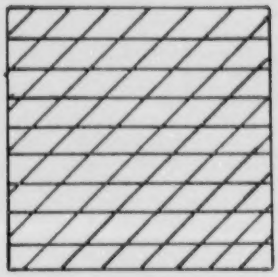
CHECK YOUR ANSWERS.

CORRECT YOUR MISTAKES.

LECCIÓN 5B-6: ÁREA DE RECTÁNGULOS



La unión de un rectángulo y su interior se llama una región rectangular.

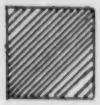


La unión de un cuadrado y su interior se llama una región cuadrada.

Para hallar el área de una región en un plano, primero escoge una región cuadrada de 1 unidad en cada lado.

Esta se llama una región básica. El área o la parte del plano "cubierta" por una región básica, es la unidad cuadrada (1 unidad cuad.)

1 unidad



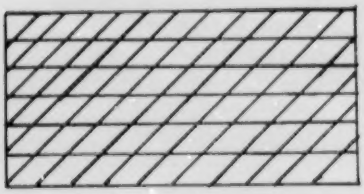
REGIÓN BÁSICA

(Área = 1 unidad cuadrada)

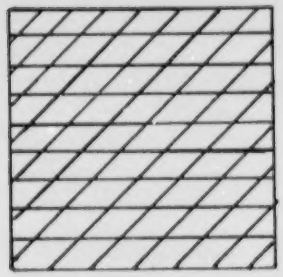
El *ÁREA* de una figura plana es el número de regiones básicas contenidas en su región interior.

(Por lo general, una región cuadrada es la región básica.)

LESSON 5B-6: AREA OF RECTANGLES



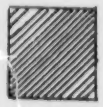
The union of a rectangle and its interior is called a rectangular region.



The union of a square and its interior is called a square region.

To find the area of a region in a plane, first choose a square region, 1 unit on each side. This is called a unit region. We say that the area, or the part of the plane "covered" by a unit region, is 1 square unit (1 sq. unit).

1 unit



UNIT REGION

(Area = 1 square unit)

The *AREA* of a plane figure is the number of unit regions contained in its interior region.

(Usually a square region is selected as the unit region.)

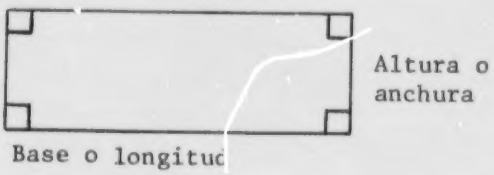
Si miras el dibujo siguiente, verás que una región rectangular de 4 unidades de largo y 2 unidades de ancho contiene 8 regiones básicas.

Si "A" designa el número de unidades cuadradas en el área, "ℓ" designa el número de unidades de largo y "w" designa el número de unidades de ancho, puedes calcular el área de un rectángulo como se muestra aquí.

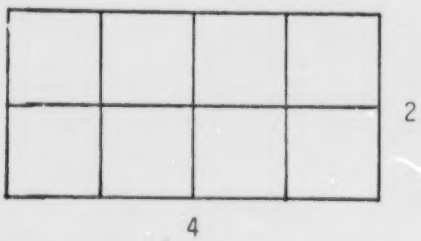
Área = longitud x anchura

$A = \ell w$
A = 4 x 2
A = 8 unidades cuad.

La longitud de un rectángulo se puede llamar la base, y la anchura se puede llamar la altura. La base y la altura se entre cortan (se intersectan) de tal manera que forman un ángulo recto.



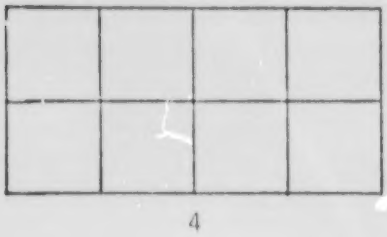
La fórmula para calcular el área de un rectángulo es



Área = base x altura

A = ba
A = 4 x 2
A = 8 unidades cuad.

You can see from the figure below that a rectangular region 4 units long and 2 units wide contain 8 unit regions.

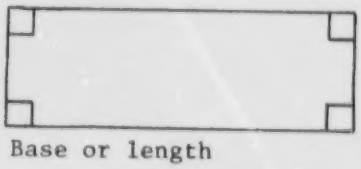


If "A" denotes the number of square units in an area, "ℓ" denotes the number of units in length, and "w" denotes the number of units in width, you can find the area of a rectangle as follows.

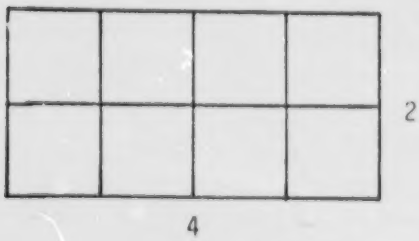
Area = length x width

$A = \ell w$
A = 4 x 2
A = 8 sq. units

In a rectangle the <u>length</u> can be called the <u>base</u> and the <u>width</u> can be called the <u>altitude</u> (height). The base and the altitude intersect to form a right angle.



The formula for the area of a rectangle is:



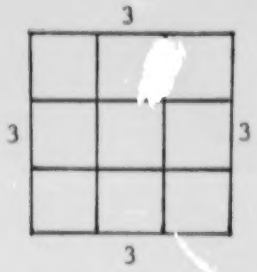
Area = base x altitude

A = ba
A = 4 x 2
A = 8 sq. units

Recuerda que un cuadrado es un tipo especial de rectángulo. La fórmula para calcular el área de un cuadrado es

$A = s^2$ o $A = ba$

Ejemplo



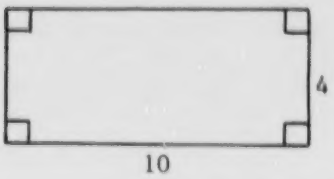
$A = s^2$

$A = 3^2$

A = 9 unidades cuad.

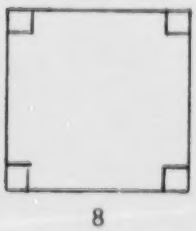
Recuerda ....

Un rectángulo tiene dos pares de lados de longitudes iguales. No tienes que rotular las longitudes de todos los lados. Por lo general, verás el rectángulo dibujado como se muestra aquí.



A = ba
A = 10 x 4
A = 40 unidades cuad.

Un cuadrado tiene 4 lados de la misma longitud. Puesto que los lados opuestos tienen la misma medida, no tienes que rotular las longitudes de todos los lados. Por lo general, verás el cuadrado dibujado como se muestra aquí.



$A = s^2$ o $A = ba$

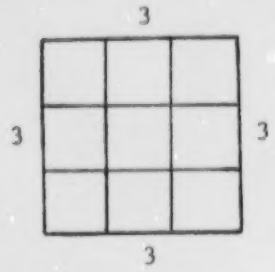
$A = 8^2$

A = 64 unidades cuad.

Remember that a square is a special rectangle. The formula for finding the area of a square is

$A = s^2$ or $A = ba$

Example



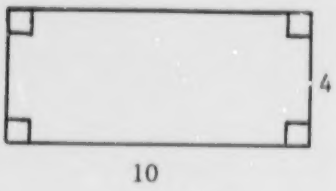
$A = s^2$

$A = 3^2$

$A = 9$ sq. units

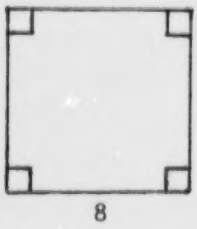
Remember ....

A rectangle has two pairs of sides with equal lengths. It is necessary to give the lengths of all the sides. You will usually see it drawn like this.



$A = ba$
$A = 10 \times 4$
$A = 40$ sq. units

A square has 4 sides of equal length. Since opposite sides are the same length it is unnecessary to give the lengths of all the sides. You will usually see a square drawn like this.



$A = s^2$ or $A = ba$

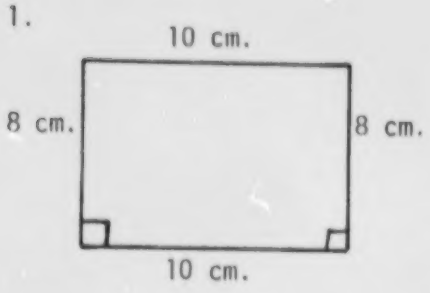
$A = 8^2$

$A = 64$ sq. units

Ejercicio 5B-6

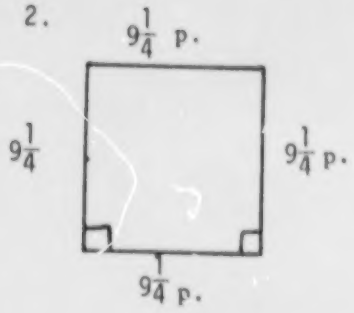
Halla el área de cada figura. Muestra todo el trabajo en una hoja de papel.

1.



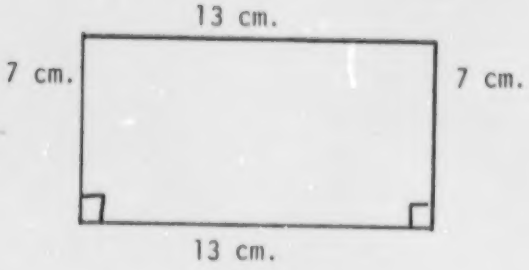
_____ cm.

2.



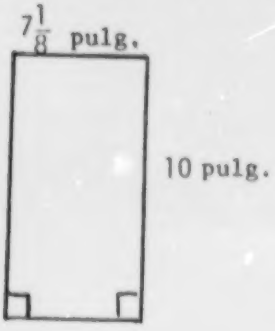
_____ p. cuad.

3.



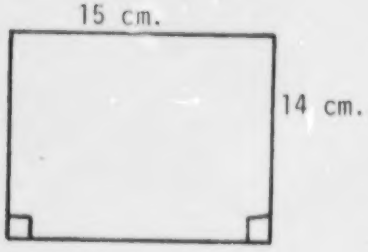
_____ cm.

4.



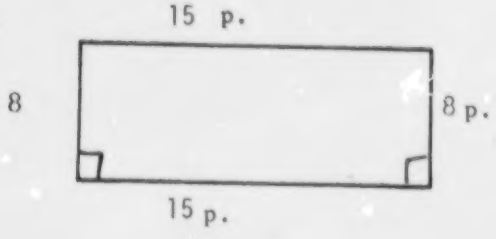
_____ pulg. cuad.

5.



_____ cm.

6.

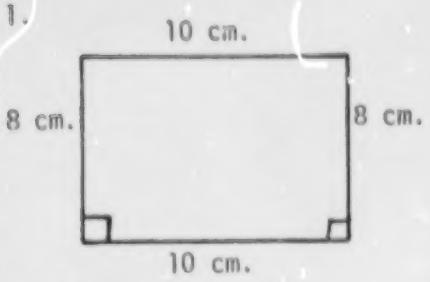


_____ p. cuad.

Exercise 5B-6

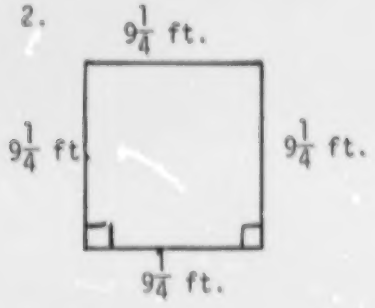
Find the area of each figure. Use the proper formula. Show all work on notebook paper.

1.



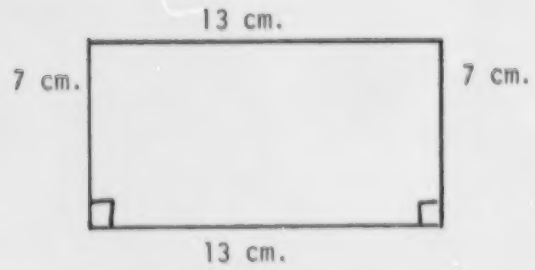
_____ sq. cm.

2.



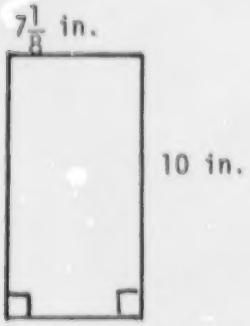
_____ sq. ft.

3.



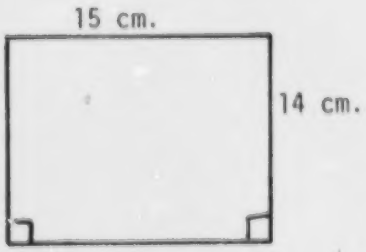
_____ sq. cm.

4.



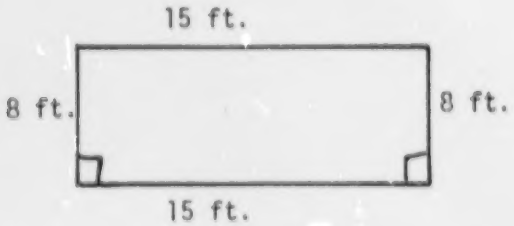
_____ sq. in.

5.



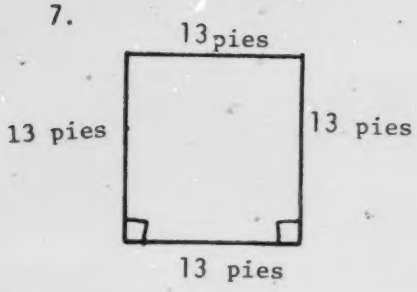
_____ sq. cm.

6.



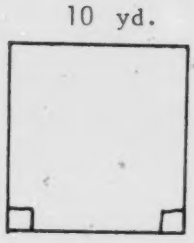
_____ sq. ft.

7.



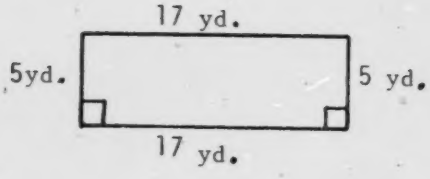
_____ sq. pies

8.



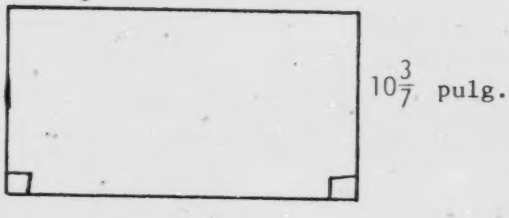
_____ yd. cuad.

9.



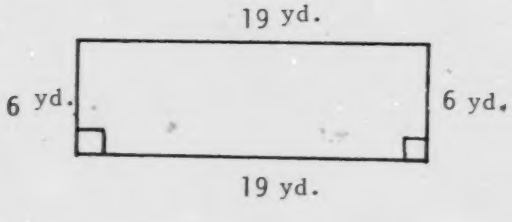
_____ yd cuad.

10.



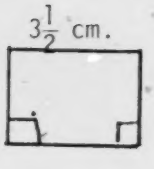
_____ pulg. cuad.

11.



_____ yd. cuad

12.

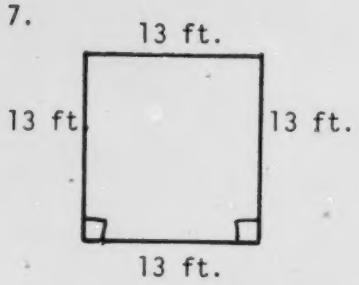


_____ cm. cuad.

REVISA TUS RESPUESTAS.

CORRIGE LOS ERRORES.

7.

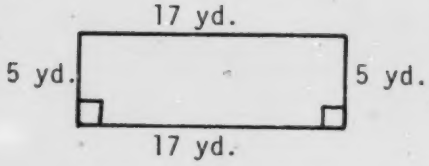


_____ sq. ft.

8.

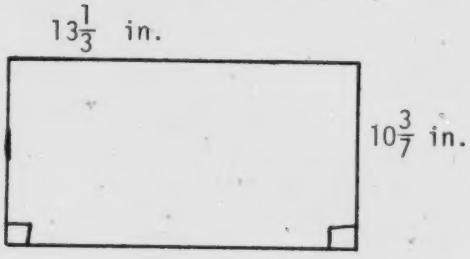
_____ sq. yd.

9.



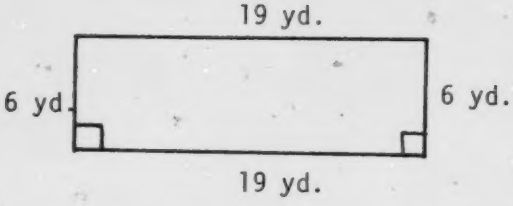
_____ sq. yd.

10.



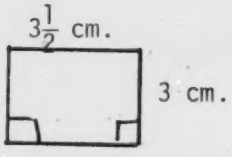
_____ sq. in.

11.



_____ sq. yd.

12.



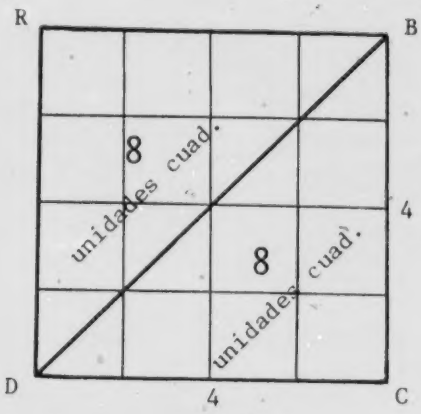
_____ sq. cm.

CHECK YOUR ANSWERS.

CORRECT YOUR MISTAKES.

LECCIÓN 5B-7: ÁREA DE TRIÁNGULOS

Traza una línea diagonal a través de un rectángulo. De este modo, formarás dos *TRIÁNGULOS* iguales.



El área de cada *TRIÁNGULO* es igual a la mitad del área del rectángulo.

Para rectángulo RBCD

A = ba
A = 4 x 4
A = 16 unidades cuad.

Para △ DBC △ RDB

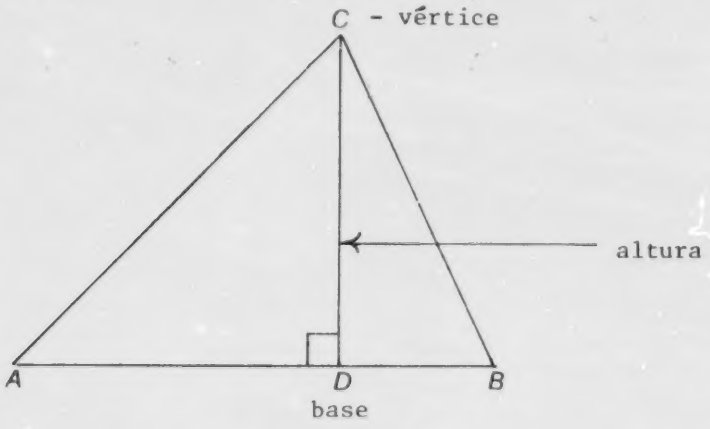
$A = \frac{1}{2}$ ba

$A = \frac{1}{2}$ (4 x 4)

$A = \frac{16}{2}$

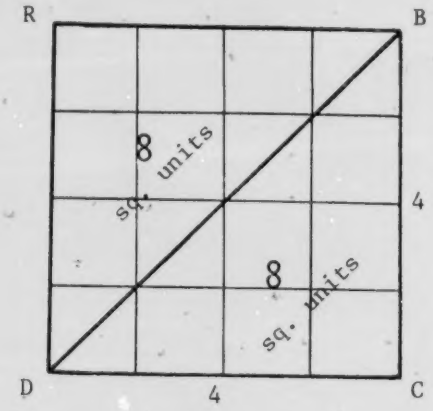
A = 8 unidades cuad.

Cualquier lado de un triángulo se puede llamar la base. La altura y la base forman un ángulo recto. (Un ángulo recto forma una esquina cuadrada.) La altura es el segmento de recta que une el vértice y la base y las dos forman un ángulo recto.



LESSON 5B-7: AREA OF TRIANGLES

If you place a diagonal line through a rectangle you will make two equal *TRIANGLES*.



The area of each TRIANGLE is exactly one half the area of the rectangle.

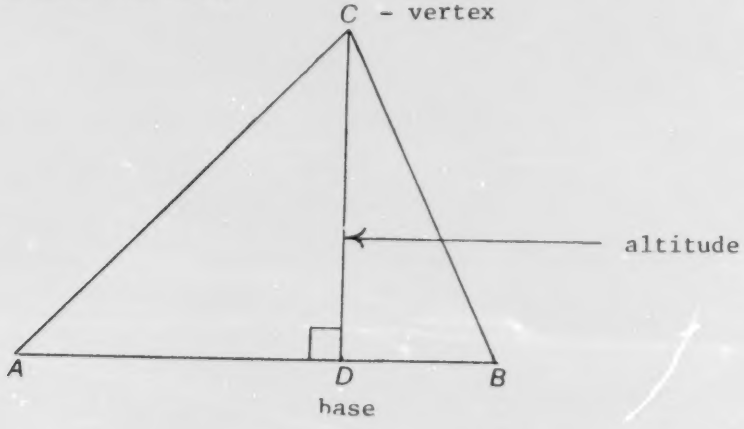
For rectangle RBCD

$A = ba$
$A = 4 \times 4$
$A = 16$ sq. units

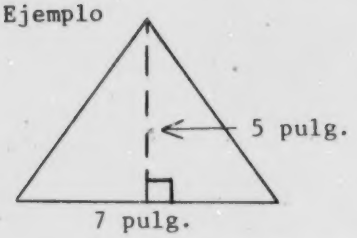
For $\triangle$ DBC or $\triangle$ RDB

$A = \frac{1}{2} ba$
$A = \frac{1}{2} (4 \times 4)$
$A = \frac{16}{2}$
$A = 8$ sq. units

In a triangle, any one of the sides can be called the base. The altitude forms a right angle with the base. (A right angle forms a square corner.) The altitude is the line segment that joins the vertex and the base and forms a right angle with the base.



Ejemplo



$A = \frac{1}{2}$ ba

$A = \frac{1}{2}$ (7 x 5)

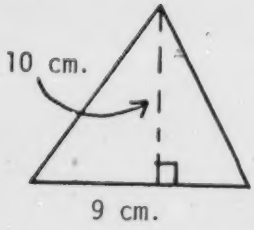
$A = \frac{35}{2}$

$A = 17\ \frac{1}{2}$ pulgadas cuadradas

Ejercicio 5B-7

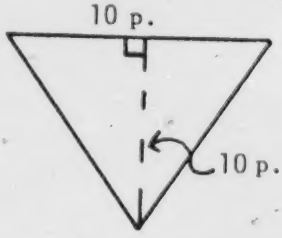
Halla el área de cada figura. Muestra todo el trabajo en una hoja de papel. Escribe la fórmula y resuelve el problema como se muestra en el ejemplo anterior.

1.



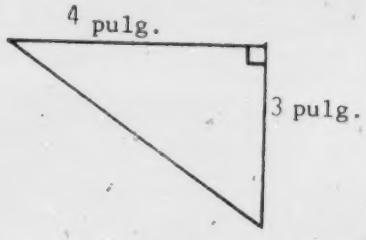
_____ cm.

2.



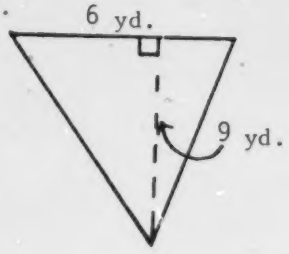
_____ p.

3.



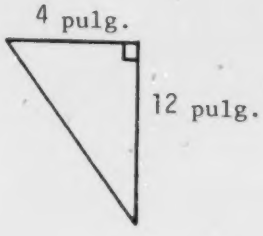
_____ pulg. cuad.

4.



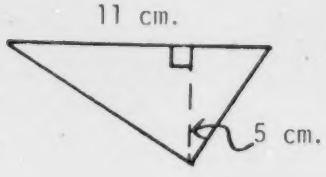
_____ yd. cuad.

5.



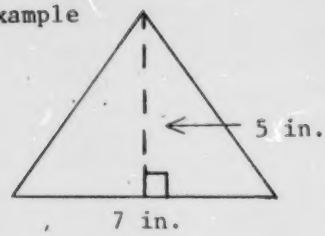
_____ pulg. cuad.

6.



_____ cm. cuad.

Example



$A = \frac{1}{2}ba$

$A = \frac{1}{2}(7 \times 5)$

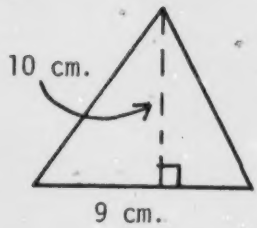
$A = \frac{35}{2}$

$A = 17$ square inches

Exercise 5B-7

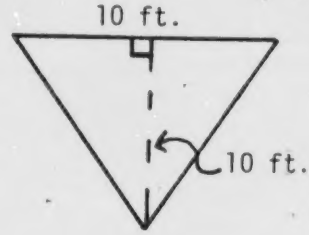
Find the area of each figure. Show all work on notebook paper. Write the formula and solve the problem as in the example above.

1.



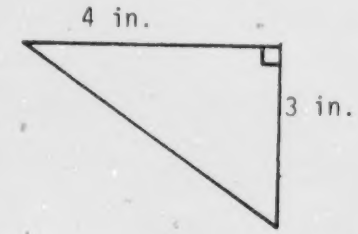
_____ sq. cm.

2.



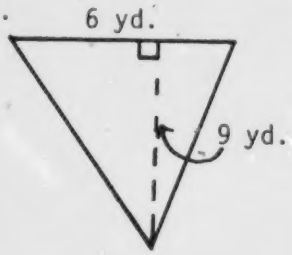
_____ sq. ft.

3.



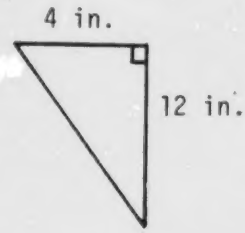
_____ sq. in.

4.



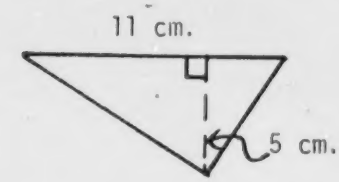
_____ sq. yd.

5.



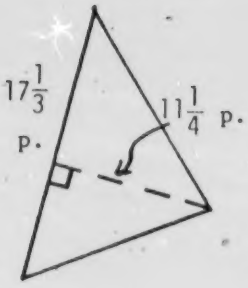
_____ sq. in.

6.



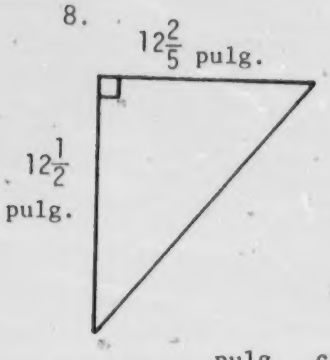
_____ sq. cm.

7.



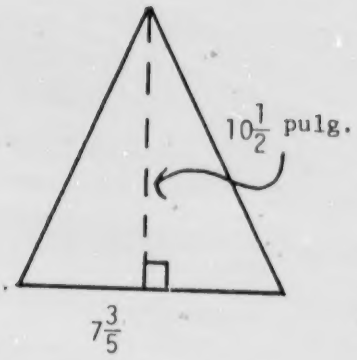
_____ p. cuad.

8.



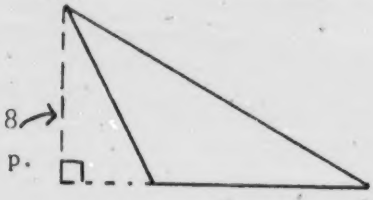
_____ pulg. cuad.

9.



_____ pulg. cuad.

10.

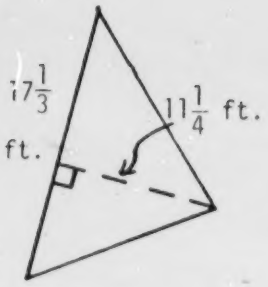


_____ p. cuad.

REVISA TUS RESPUESTAS.

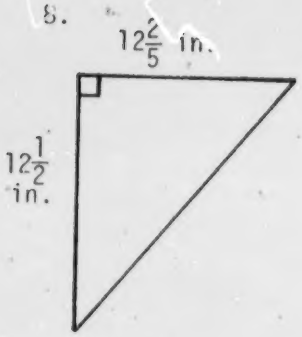
CORRIGE LOS ERRORES.

7.



_____ sq. ft.

8.

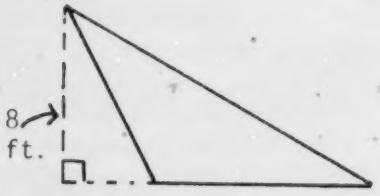


_____ sq. in.

9.

_____ sq. in.

10.



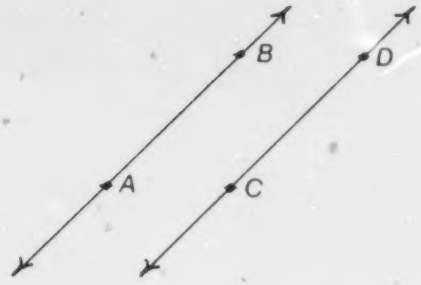
_____ sq. ft.

CHECK YOUR ANSWERS.

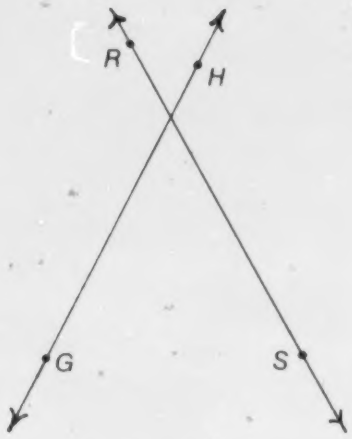
CORRECT YOUR MISTAKES.

LECCIÓN 5B-8: ÁREA DE PARALELOGRAMOS

El concepto de *RECTAS PARALELAS* te ayudará a comprender lo que es un paralelogramo. Dos rectas son paralelas cuando están en el mismo plano y no se intersectan.



La recta AB y CD son paralelas



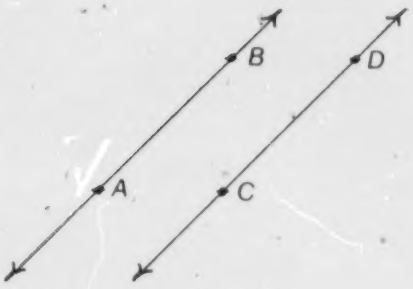
Las rectas GH y RS no son paralelas

> Un *PARALELOGRAMO* es una figura plana de cuatro lados cuyos lados opuestos son paralelos y de la misma longitud.

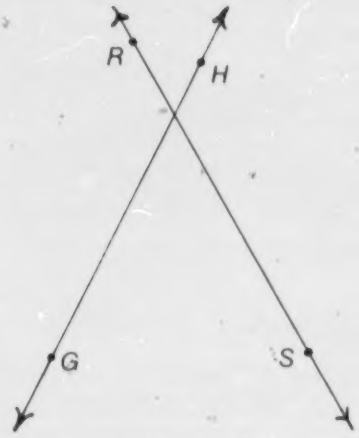
Recuerda ... Si trazas una recta diagonal a través de un rectángulo formarás dos triángulos iguales. Observa las siguientes páginas.

LESSON 5B-8: AREA OF PARALLELOGRAMS

The concept of *PARALLEL LINES* will help you understand what a parallelogram is. Two lines are parallel when they are in the same plane and do not intersect.



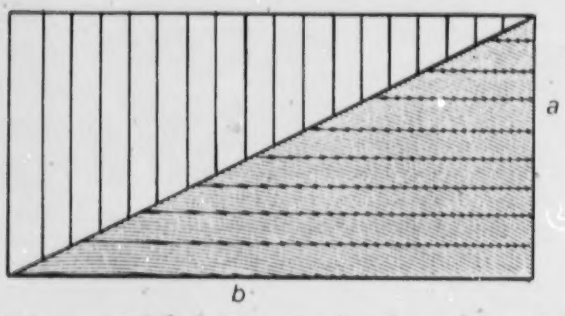
Lines AB and CD are parallel.



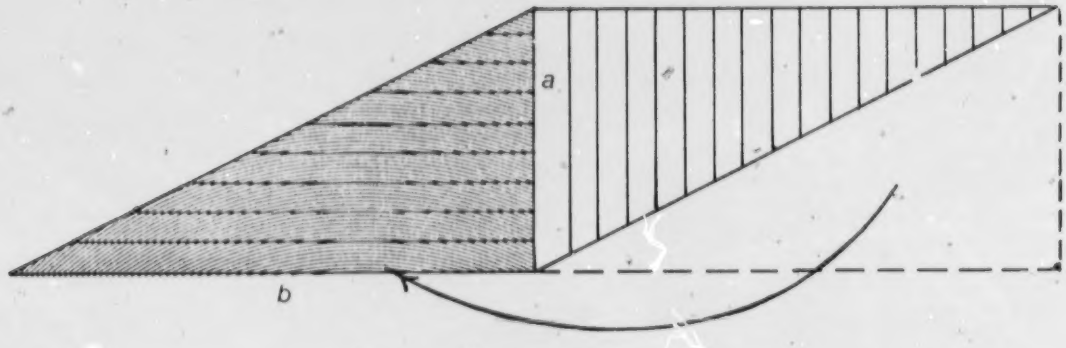
Lines GH and RS are not parallel.

> A *PARALLELOGRAM* is a four-sided plane figure whose opposite sides are parallel and of equal length.

Remember ... If you place a diagonal line through a rectangle, you will make two equal traingles. See next pages.



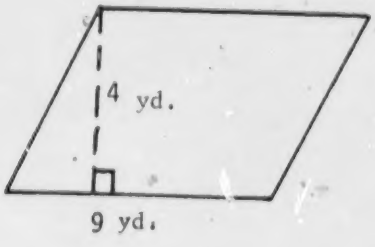
Podrías levantar uno de los triángulos, moviéndolo para formar un paralelogramo, como se muestra abajo.



Los diagramas anteriores te muestran que el área de un paralelogramo es igual al área de un rectángulo de la misma base y altura.

(Recuerda: la base y la altura forman un ángulo recto.)

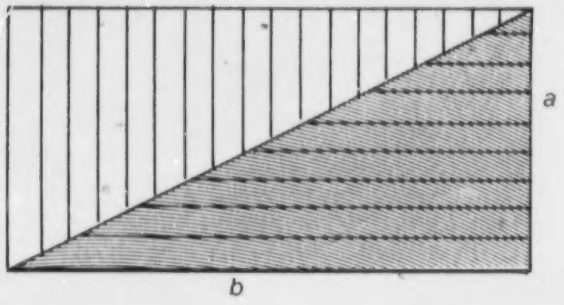
Ejemplo:



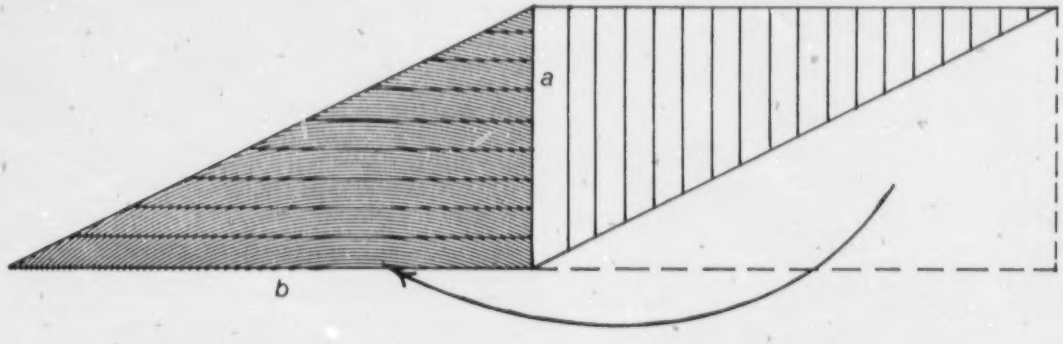
A = ba

A = 9 x 4

A = 36 yardas cuad.



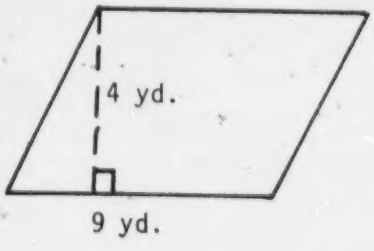
You could pick up one of the triangles and move it to form a parallelogram as shown below.



It should be clear to you that the area of a parallelogram is the same as the area of a rectangle with the same base and altitude.

(Remember: The base and the altitude form a right angle.)

Example:



A = ba

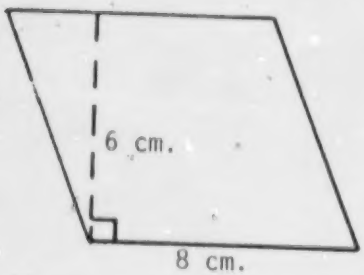
A = 9 x 4

A = 36 sq. yards

Ejercicio 5B-8

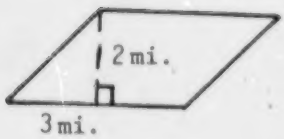
Halla el área de cada figura. Usa la fórmula correcta. Muestra todo el trabajo escrito en una hoja de papel.

1.



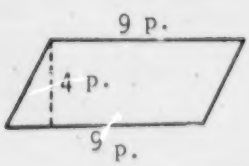
_____ cm. cuad.

2.



_____ mi. cuad.

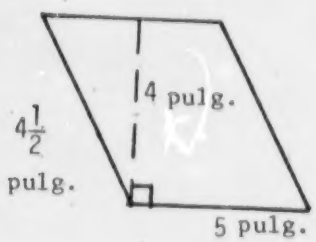
3.



q

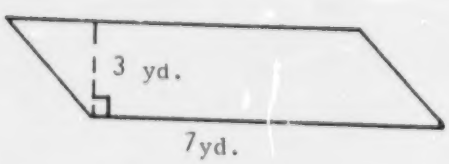
_____ p. cuad.

4.



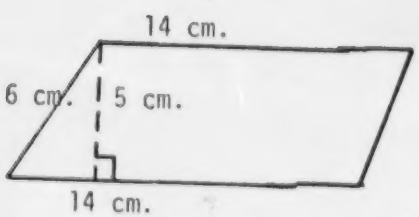
_____ pulg. cuad.

5.



_____ sq. yd.

6.

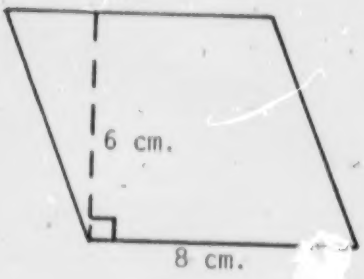


_____ cm. cuad.

Exercise 5B-8

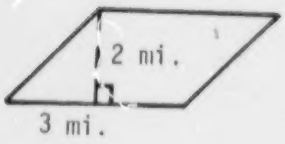
Find the area of each figure. Use the proper formula. Show all work on notebook paper.

1.



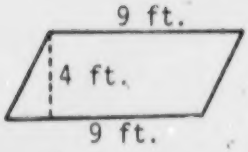
_____ sq. cm.

2.



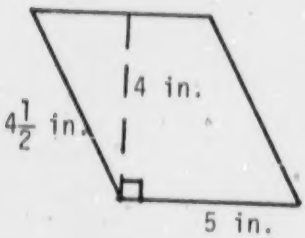
_____ sq. mi.

3.



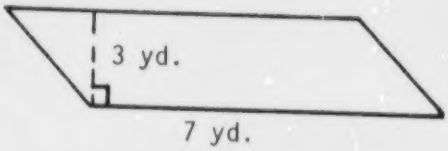
_____ sq. ft.

4.



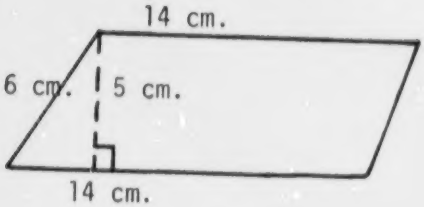
_____ sq. in.

5.



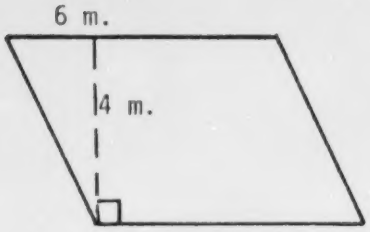
_____ sq. yd.

6.



_____ sq. cm.

7.

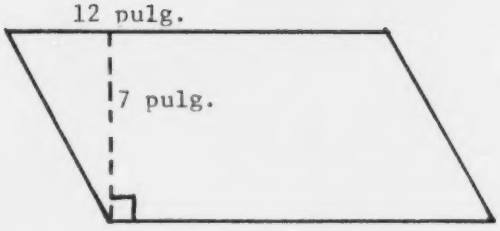


_____ m. cuad.

8.

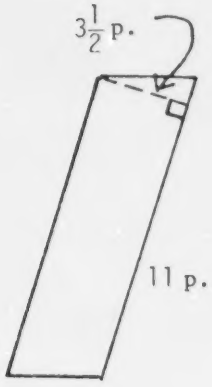
_____ mm.

9.



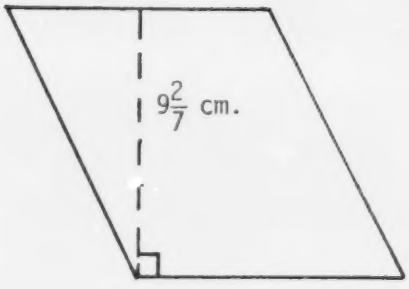
_____ pulg. cuad.

10.



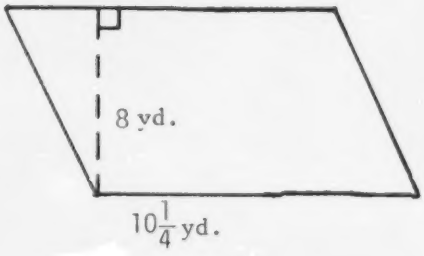
_____ p. cuad.

11.



_____ cm. cuad.

12.



_____ yd. cuad.

REVISA TUS RESPUESTAS.

CORRIGE LOS ERRORES.

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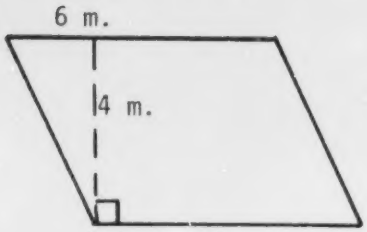
7.

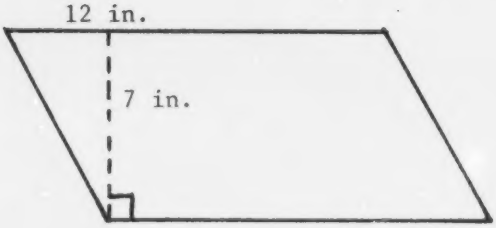


_____ sq. m.

8.

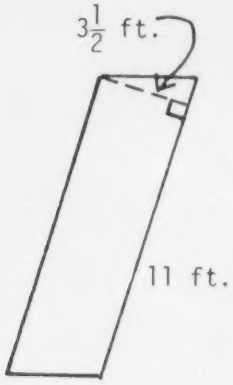
_____ sq. mm.

9.



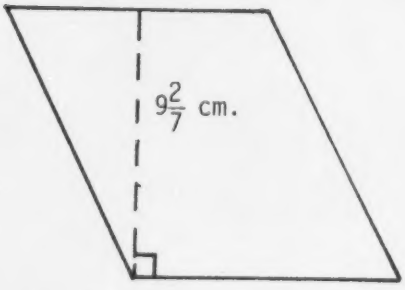
_____ sq. in.

10.



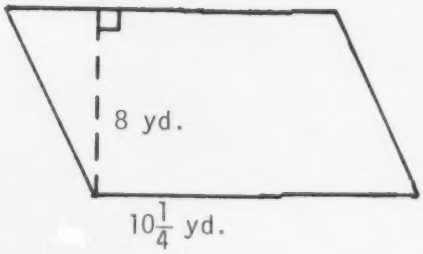
_____ sq. ft.

11.



_____ sq. cm.

12.



_____ sq. yd.

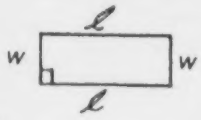
CHECK YOUR ANSWERS.

CORRECT YOUR MISTAKES.

LECCIÓN 5B-9: PROBLEMAS -- APLICACIONES PRÁCTICAS

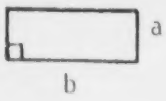
Resumen de Fórmulas

Perímetro del rectángulo



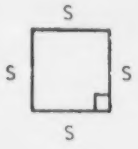
$p = 2(\ell + w)$

Área del rectángulo



$A = ba$

Perímetro del cuadrado

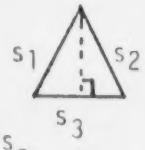


$p = 4s$

Área del cuadrado

$A = s^2$

Perímetro del triángulo

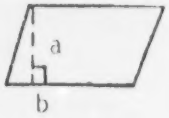


$p = s_1 + s_2 + s_3$

Área del triángulo

$A = \frac{1}{2}ba$

Área del paralelogramo



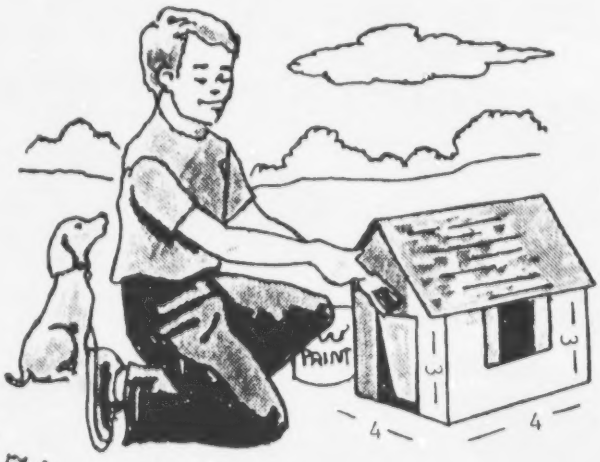
$A = ba$

Ejercicio 5B-9

Usa fórmulas para calcular las respuestas. Muestra todo el trabajo escrito en una hoja de papel.

1. Diego quiere pintar 3 lados de la casita de su perro. Cada lado tiene forma rectangular, midiendo 4 pies de largo y 3 pies de ancho.

   a. ¿Cuál es el área de un lado?
   b. ¿Cuántos pies cuadrados de superficie tiene que pintar?
   c. Un cuarto de pintura cubrirá 36 pies cuadrados. ¿Cuántas latas debe comprar Diego?



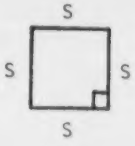
LESSON 5B-9: STATED PROBLEMS

Summary of Formulas

Perimeter of a rectangle

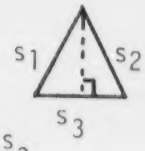
$p = 2(\ell + W)$

Perimeter of a square



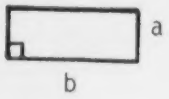
$p = 4s$

Perimeter of a triangle



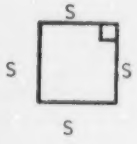
$p = s_1 + s_2 + s_3$

Area of a rectangle



$A = ba$

Area of a square

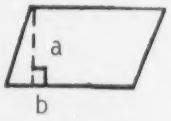


$A = s^2$

Area of a triangle

$A = \frac{1}{2}ba$

Area of a parallelogram



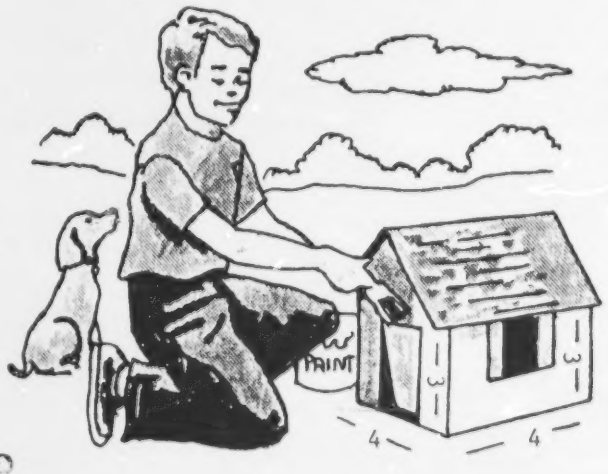
$A = ba$

Exercise 5B-9

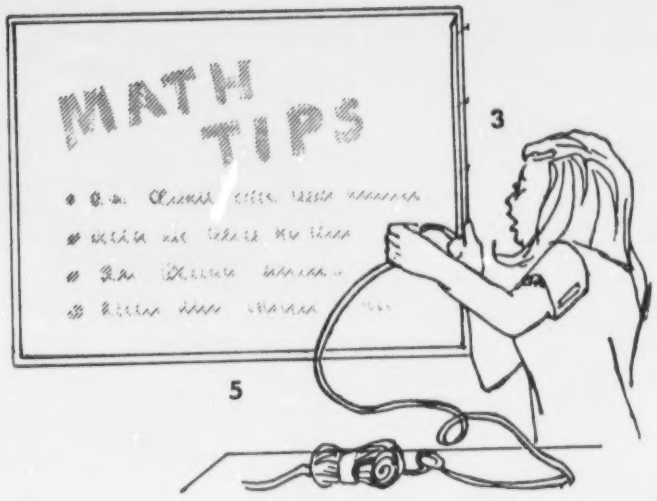
Use the formulas to find the answers. Show all work on notebook paper.

1. Roy wants to paint 3 sides of his doghouse. Each of the three sides is in the shape of a rectangle 4 feet long and 3 feet high.

   a. What is the area of one side?
   b. How many square feet does he have to paint all together?
   c. If 1 quart of paint covers 36 sq. ft. how many quarts should he buy?



2. Susanita quería decorar un tablero (un cartel). El tablero mide 5 pies de largo y 3 pies de ancho. Quería hacer una orilla de hilaza (estambre) de colores y fondo de papel verde.

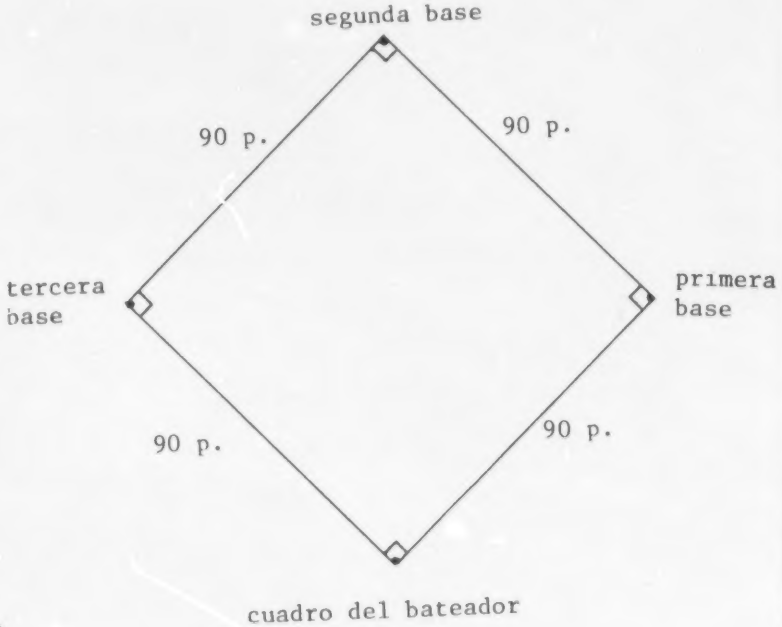


   a. ¿Cuántos pies de hilaza necesita Susanita?
   b. ¿Cuántos pies cuadrados de papel necesitará para el fondo verde?
   c. Las únicas hojas de papel verde que tiene Susanita son cuadrados de 3 pies de lado. ¿Cuántas hojas de papel necesitará?

3. El vidrio de una ventana mide 18 pulgadas de ancho y 32 pulgadas de largo. ¿Cuál es el perímetro del vidrio?

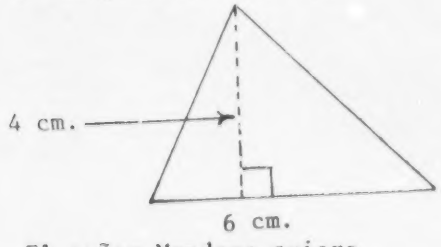
4. Un campo de pelota (béisbol), llamado diamante, tiene forma cuadrada. La distancia entre las bases es 90 pies.

   a. El perímetro del diamante es _____ pies.
   b. El área es _____ pies.



cuadro del bateador

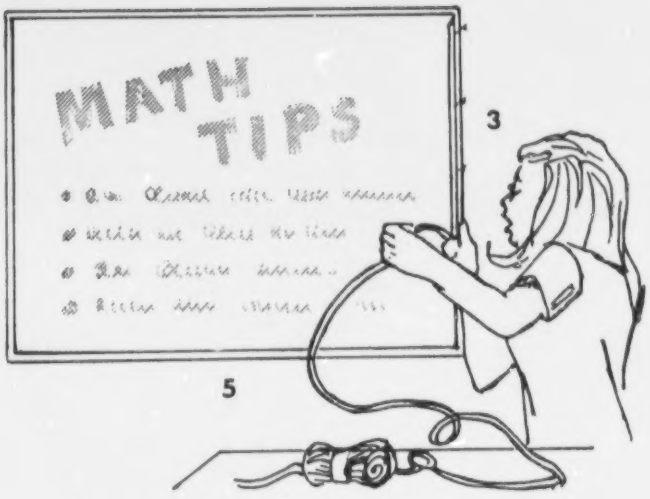
5. Busca el área de un triángulo si la base mide 6 cm. y la altura 4 cm.



6. El señor Mendoza quiere cercar un jardín rectangular ¿Cuántos pies de cerca de alambre necesita el señor si el jardín mide 90 pies de ancho y 100 pies de largo?

2. Susie wanted to decorate a rectangular bulletin board. The board is 5 feet long and 3 feet wide. She wanted a border of colored yarn and a green paper background.

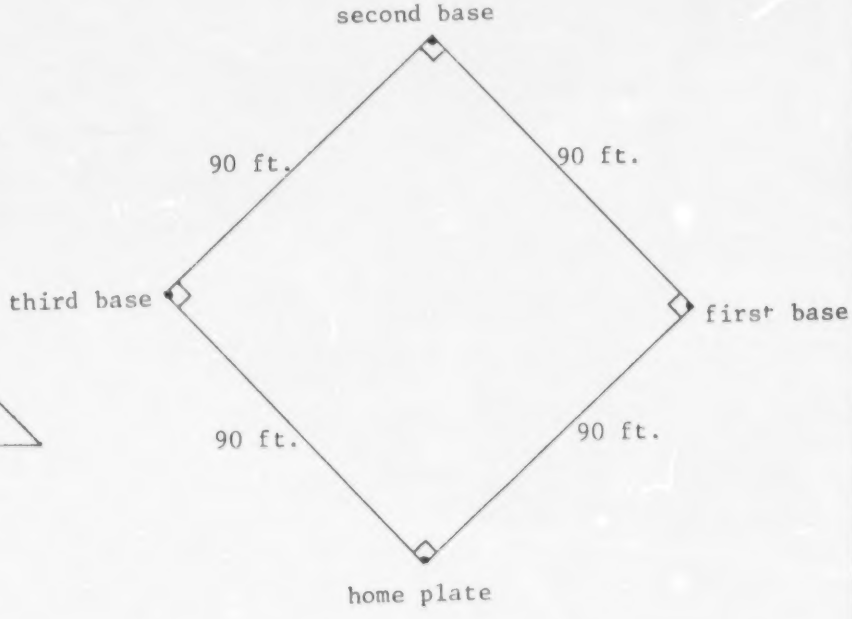
   a. How many feet of colored yarn will she need?
   b. How many square feet of paper will she need for the background?
   c. The only pieces of paper that Susie has are squares that are 3 feet on a side. How many pieces of paper will she need?



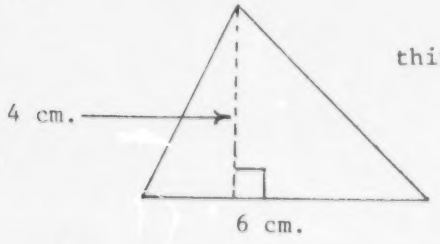
3. A window pane is 18 inches wide and 32 inches long. What is the perimeter of the window pane?

4. The distance between the bases of a baseball diamond (a square) is 90 feet.

   a. The perimeter of the baseball diamond is _____ feet.
   b. The area is _____ feet.



5. Find the area of a triangle whose base is 6 cm. and whose altitude is 4 cm.



6. How many feet of chain link fence will Mr. Mendoza need to completely enclose a rectangular garden that is 90 ft.wide and 100 ft. long?

7. How many square yards of carpet would be needed to cover the floor of a bedroom that is 9 ft. long and 12 ft. wide? (Hint: First change the measures

7. Una recámara (habitación) mide 9 pies de largo y 12 pies de ancho. ¿Cuántas yardas de alfombra se necesitará para cubrir el suelo (piso) de la recámara? (Sugerencia: Primero convierte las medidas de pies a yardas. Después halla el área, expresada en yardas cuadradas.)

REVISA TUS RESPUESTAS.

CORRIGE los ERRORES.

75

from feet to yards. Then find the area in square yards.)

CHECK YOUR ANSWERS.

CORRECT YOUR MISTAKES.

NIVEL 5

REPASO

RAYO, RECTA, SEGMENTO DE RECTA, ÁNGULO

1. Designa (dí el nombre de) 3 rayos.

   _____, _____, _____

2. Designa 2 rectas.

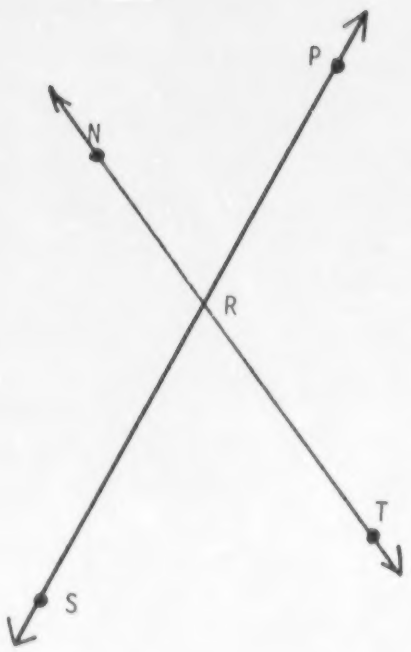
   _____, _____

3. Designa 4 segmentos de recta.

   _____, _____, _____, _____

4. Designa 5 puntos.

   _____, _____, _____, _____, _____



5. $\overrightarrow{RN} \cup \overrightarrow{RT}$ = _____

   $\overrightarrow{RP} \cup \overrightarrow{RT}$ = _____

   $\overrightarrow{RN} \cup \overrightarrow{RS}$ = _____

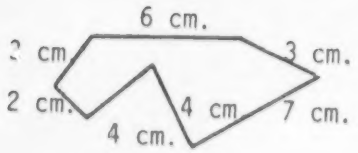
   $\overline{SR} \cup \overline{RP}$ = _____

   $\overline{NR} \cap \overline{RT}$ = _____

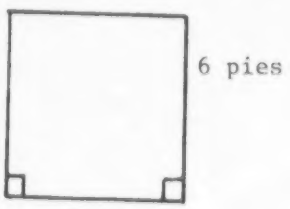
   $\overline{SP} \cap \overline{NT}$ = _____

Halla el perímetro de cada figura.

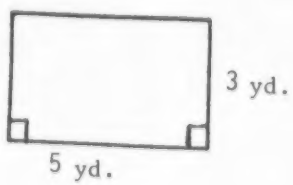
6.



7.



8.



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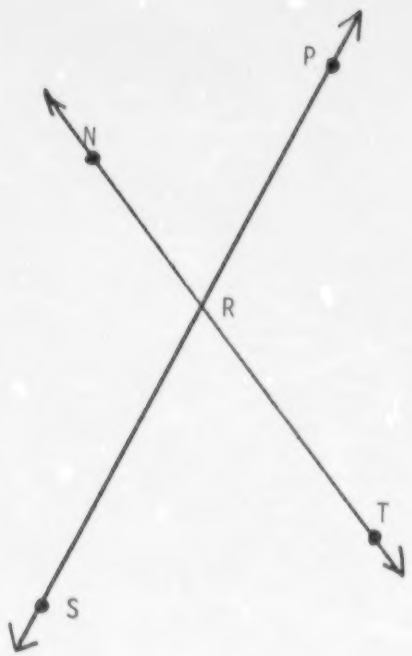
LEVEL 5

REVIEW

RAY, LINE, LINE SEGMENT, ANGLE



1. Name 3 rays.

   _____, _____, _____

2. Name 2 lines.

   _____, _____

3. Name 4 line segments.

   _____, _____, _____, _____,

4. Name 5 points.

   _____ , _____, _____, _____, _____,

5. $\overrightarrow{RN} \cup \overrightarrow{RT}$ = _____

   $\overrightarrow{RP} \cup \overrightarrow{RT}$ = _____

   $\overrightarrow{RN} \cup \overrightarrow{RS}$ = _____

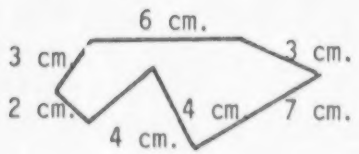
   $\overline{SR} \cup \overline{RP}$ = _____

   $\overline{NR} \cap \overline{RT}$ = _____

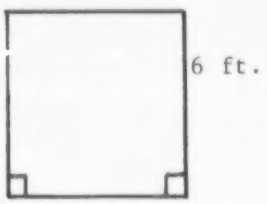
   $\overline{SP} \cap \overline{NT}$ = _____

Find the perimeter of each figure.

6.



7.



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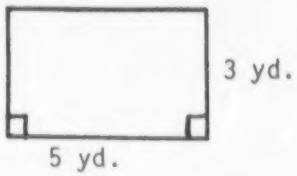
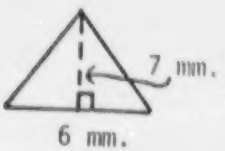


Halla el área de cada figura.

9.



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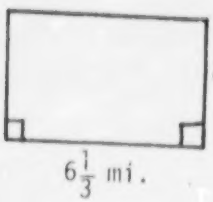
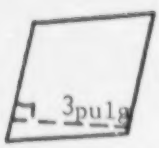
11.



12.



Mide cada segmento de recta a la unidad más cercana que se indica.

13. ⊢——⊣ ≐ _____(el centímetro más cercano)

14. ⊢————⊣ ≐ _____(el $\frac{1}{4}$ pulgada más cercana)

15. ⊢————⊣ ≐ _____(la pulgada más cercana)

16. ⊢——⊣ ≐ _____(el milímetro más cercano)

17. ⊢————⊣ ≐ _____(la $\frac{1}{2}$ pulgada más cercana)

REVISA TUS RESPUESTAS.

CORRIGE LOS ERRORES.

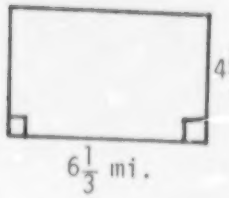
ACABAS DE TERMINAR LA TAREA DE ESTE NIVEL. CONSULTA CON TU PROFESOR SOBRE EL EXAMEN.

Find the area of each figure.

9.

10.

11.



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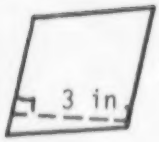

Measure each line segment to the nearest unit indicated.

13. ⊢——⊣ $\doteq$ _____(nearest centimeter)

14. ⊢——⊣ $\doteq$ _____(nearest $\frac{1}{4}$ inch)

15. ⊢——⊣ $\doteq$ _____(nearest inch)

16. ⊢——⊣ $\doteq$ _____(nearest millimeter)

17. ⊢——⊣ $\doteq$ _____(nearest $\frac{1}{2}$ inch)

CHECK YOUR ANSWERS.

CORRECT YOUR MISTAKES.

YOU HAVE NOW FINISHED THE WORK IN THIS LEVEL. CHECK WITH YOUR TEACHER ABOUT TESTING.

GLOSARIO

ÁREA DE UNA FIGURA PLANA--El número de regiones básicas contenidas en su región interior (Por lo general, una región cuadrada se escoge como la región básica .)

MEDIDA DE UN SEGMENTO DE RECTA--La longitud de un segmento expresada en términos de la unidad de medida elegida

MEDIDA--La medida tiene dos partes, un numeral para designar la medida y una palabra o un símbolo para designar la unidad de medida

RECTAS PARALELAS--Dos rectas son paralelas cuando están en el mismo plano y no se intersectan.

PARALELOGRAMO--Una figura plana de cuatro lados cuyos lados opuestos son paralelos y de la misma longitud

PERÍMETRO DE UNA FIGURA PLANA--La suma de las medidas de sus lados

RECTÁNGULO--Una figura plana de cuatro lados que tiene cuatro ángulos rectos

CUADRADO--Un tipo especial de rectángulo que tiene cuatro lados de la misma medida

TRIÁNGULO--Una figura plana de tres lados

UNIDAD DE MEDIDA (de longitud)--El segmento de recta elegido como unidad básica de medida

GLOSSARY

AREA OF A PLANE FIGURE--The number of unit regions contained in its interior region (Usually a square region is selected as the unit region.)

MEASURE O. A LINE SEGMENT--The length of a line segment, expressed in terms of a selected unit of measure

MEASUREMENT--Measurement consists of two parts, a numeral to name the measure and a word or symbol to name the unit of measure.

PARALLEL LINES--Two lines are parallel when they are in the same plane and do not intersect.

PARALLELOGRAM--A four-sided plane figure whose opposite sides are parallel and of equal length

PERIMETER OF A PLANE FIGURE--The sum of the measures of its sides

RECTANGLE--A four-sided plane figure that has four right angles

SQUARE--A special rectangle in which all four sides have the same measure

TRIANGLE--A three-sided plane figure

UNIT OF MEASURE OF LENGTH-- A segment which has been selected as a standard of measure

TABLA DE REFERENCIA

Clave	Editor	Título
IAB	Allyn and Bacon, Inc.	*Repaso matemático bilingüe*
6F	Fondo Educativo Interamericano, S.A.	*Matemática para la educación primaria, libro 6*
6PC	Publicaciones Cultural, S.A.	*Matemáticas modernas para escuelas secundarias, libro 6*
6SB	General Learning Corporation	*Matemática de Silver Burdett. libro 6*
7EM	Editorial Novaro México, S.A.	*Matemáticas, primer curso*
7PC	Publicaciones Cultural, S.A.	*Matemáticas modernas, libro 1*
8PC	Publicaciones Cultural, S.A.	*Matemáticas modernas, libro 2*

Lección	Tema	Libro	Lee y estudia	Páginas escogidas	Números de los problemas
5B-1	Medidas	7PC	410-412	415	1-13
		8PC	174-177		
5B-2	Midiendo segmentos de recta	6F	95	95	1-3
		7PC	417-419		
		8PC	202-214		
5B-3	Práctica en el uso de la regla	6SB	145	146	1-10
		7PC		421	1-9
		7PC		422	10-25
5B-4	Perímetro	6F		101	1-3
		7PC	414	416	7-16
		8PC	132	135-136	3,4,5; 1,2,3,4
		6SB	187	187	1-10
5B-5	Perímetro de rectángulos	6SB	188	188-189	1-6
		6SB		189	Ejercicios 1-9
5B-6	Area de rectángulos	6F	102	102	1-5
		6SB	190	190	1-3
		7PC	439	443	1,2,7,8
		8PC	138	142	13,14

Lección	Tema	Libro	Lee y estudia	Páginas escogidas	Números de los problemas
5B-7	Área de triángulos	6F	107	107	1-4
		6SB	324	325	1-8
		7PC	441	443	3,4
		7PC		442	4-7
		8PC	139-140		
5B-8	Área de Paralelogramos	7PC	439,440	443	13-14
		8PC	139	140	9,15,16
5B-9	Problemas-Aplicaciones prácticas	7PC		423	29-32
		8PC		137	1-9

REFERENCE CHART

Code	Publisher	Title
6AW	Addison-Wesley Publishing Co.	*Elementary School Mathematics, 6*
6A	American Book Company	*Improving with Mathematics*
6S	The L. W. Singer Co.	*Sets and Numbers Grade 6*
6HRW	Holt, Rinehart and Winston, Inc.	*Exploring Elementary Mathematics, 6*
7AW	Addison-Wesley Publishing Co.	*School Mathematics I*
7HM	Houghton Mifflin Company	*Modern School Mathematics 7*
7BAW	Addison-Wesley Publishing Co.	*Success with Mathematics 1*
7G	Houghton-Wesley Publishing Co.	*Mathematics I*
7L	Laidlaw Brothers, Inc.	*Growth in Mathematics*
8AW	Addison-Wesley Publishing Co.	*School Mathematics II*
8HM	Houghton-Mifflin Company	*Modern School Mathematics 8*
8BAW	Addison-Wesley Publishing Co.	*Success with Mathematics 2*
8G	Ginn and Company	*Mathematics II*
8L	Laidlaw Brothers, Inc.	*Success with Mathematics*

Lesson Number	Topic	Book	Study Pages	Selected Page	Problem Numbers
5B-1	Measures and Measurements	7HM	410-411	414	1-13
		8HM	174-177		
5B-2	Measuring Line Segments	6AW	20	20	1-3
		6HRW		335-336	1-10
				337	1-25
		6A	305	305	1-5
		8HM	202-204		
		7HM	417-419		
5B-3	Practice in Using the Ruler	6A	306	306	1-4
				312	1-4
		7HM		421	1-10
		7HM		422	11-28
5B-4	Perimeter	6AW		21	5-7
		6A		163	6
		7HM	414	415	7-10
				416	11-16
		8HM	132	135-136	3,4,5; 1,2,3,4
5B-5	Perimeter of Rectangles	6HRW		292	1-3
				294	1-6

Lesson Number	Topic	Book	Study Pages	Selected Page	Problem Numbers
5B-6	Area of Rectangles	6AW	42	42	1-5
		6HRW	291	291	1-4
				292	1-14
		6A		299	1-9
		7HM	439	443	1,2,7,8
		8HM	138	142	13,14
5B-7	Area of Triangles	6AW	216	216	1-6
		6HRW	291	292	6,7,8,9,11
			295	295-296	1-5; 1-12
		6A	303	303	1-3
		7HM	441	443	3,4
				442	4-7
		8HM	139-140		
5B-8	Area of Parallelograms	6HRW	293	293-294	1-6; 1-9
		6A	302	302	1-5
		7HM	439-440	443	13-14
		8HM	139	140	9,15,16
5B-9	Stated Problems	6AW	239	239	1-8
		7HM		423	29-32
		8HM		137	1-9

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2. ¿Qué idioma prefieres usar?

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   Casi siempre Algunas veces Casi nunca

4. ¿Pudiste leer y entender las lecciones escritas en inglés?

   Casi siempre Algunas veces Casi nunca

5. ¿Qué tan interesantes fueron las lecciones para tí?

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2. Which language did you prefer using?

   Spanish English Both

3. Were you able to read and understand the lessons written in Spanish?

   Almost always Sometimes Almost never

4. Were you able to read and understand the lessons written in English?

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5. How interesting were the lessons to you?

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6. What did you like most about the book?

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